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THE TRANSLITERATION AND PRONUNCIATION OF THE LATIN LETTER *V*.

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SUMMARY OF CONTENTS.

Chapter I.—Transliteration as a basis for inquiry into pronunciation.—Inquiry facilitated by Dr. Eckinger's work on the Inscriptions.—Transliterations in Inscriptions and in received texts compared.—Transliteration of Latin *v* in Inscriptions and Authors. (pp. 1–11.)

Chapter II.—Peculiarities of transliteration in Appian, in Dio Cassius, in the Oxyrhynchus, Fayûm, and British Museum Papyri.—Effect of convention, official and otherwise, on transliteration of Latin *v*.—Mode in which its transliterations vary in accordance with the knowledge of Latin and Greek possessed by the transliterators.—Geographical distribution of the variations.—Special case of Plutarch.—Phonetic tendencies observable in the transliterations of *v*. (pp. 11–21.)

Chapter III.—General attitude of modern authorities towards the pronunciation of Latin *v*.—The pronunciation of Greek *β*.—Date at which its pronunciation began to weaken.—*β* and the digamma in late Greek.—Pronunciation of the digamma in certain dialects of later Greek.—*β* as a transliteration of Latin *b*.—Evolution of the sounds of *β*, Latin *b*, and Latin *v*.—Various general views in modern authors on the significance of the *ου* and *β* transliterations of Latin *v*.—The present writer's conclusions as to the pronunciation of Latin *v* in the Augustan age. (pp. 21–34.)

Chapter IV.—The Latin *v* in ancient and modern grammarians.—Consideration of the detailed arguments in favour of the *w* pronunciation of the Latin *v*. (pp. 35–41.)

Chapter V.—The Latin *v* in Old Celtic, Old High German, Old Low German, Old Syriac.—Latin *v* in the modern Romance tongues.—Peculiarities of pronunciation observable in those Romance-speaking peoples whose ancestors learnt Latin in an early age. (pp. 42–50.)

CHAPTER I.

The Evidence in the Received Texts of Authors.

[1] It has been recognized for some time past by Classical scholars in England that the question of the pronunciation of Latin in the English schools and universities is one which calls urgently for settlement. Two methods exist at present side by side, namely, that which is called the old pronunciation, which makes no claim to reproduce the sounds of spoken Latin, and the so-called new pronunciation, which does make such a claim, but which nevertheless is not as yet uniform in many of its details. This latter mode as adopted in English schools takes two forms: (1) that in use in Germany; (2) a form which pretends to greater scientific accuracy, and which has been chiefly advocated by distinguished Cambridge scholars. The Italian pronunciation, though at one time adopted in some schools, seems to have fallen into disuse.

The evidence with regard to the pronunciation of the majority of the Latin letters and combinations of letters is very clear; and the conclusions drawn from it do not require prolonged discussion. But in the case of other letters, and especially of the vowel *u*, the diphthongs *ae* and *œ*, and the consonants *b* and *v*, the evidence is obscure. I propose to confine myself chiefly to the evidence as to the pronunciation of the Latin *v*.

I am well aware of the boldness of the step which I have taken in reopening a question which has for the last thirty years been regarded as a *res judicata* by very eminent authorities in philology. But the evidence which will be produced in this paper is novel in form, and, to a certain extent, new in respect to matter. It would, indeed, have been somewhat futile to reopen this question merely on pre-existent evidence which had been already exhaustively considered by eminent judges.

[1] The assistance derived from published works is acknowledged fully in the course of the discussion of the question involved; but I have also to acknowledge with gratitude important help received by me from Professor Rhys, Professor of Celtic in this University; from Professor Morfill, Reader in Slavonic languages; Mr. A. E. Cowley, assistant librarian of the Bodleian; Mr. Sweet, Reader in Phonetics; and from Mr. de Atteaga, Reader in Spanish, who were kind enough to assist me with information such as could only be obtained in a reliable form from distinguished specialists.

The nature of the new evidence is as follows. Late in the eighties or early in the nineties of the last century (his work is not expressly dated), Dr. Eckinger of Zurich published a book of about 150 pages on "Die Orthographie lateinischer Wörter in Griechischen Inschriften."

Dittenberger, the compiler of the well-known collection of inscriptions, had already treated of the same subject; but the work of Eckinger is far more exhaustive, chiefly owing to the greatly increased amount of material available at the time at which he wrote. With the exception of the pronouncement of Professor Lindsay in his book on the Latin language, the authoritative pronouncements on the question of the pronunciation of Latin[1] were made before Dr. Eckinger's work appeared. Professor Lindsay's references to the work show that he has adopted Dr. Eckinger's conclusions without forming his own inductions from Dr. Eckinger's evidence. Those conclusions are limited by the fact that Dr. Eckinger did not compare the evidence of inscriptions with that to be obtained from authors, and, possibly, because his work was that of a young man writing an exercise for his degree, a composition in which it might conceivably have been imprudent to attack an immense bulk of existent authority.

Inquirers have fought shy of the transliterations of ancient authors. Mr. Roby does, indeed, make use of certain statistics which he has himself drawn up from them; but he uses them with so much reservation as to make it obvious that he regards their evidence as being of little value, because ultimately unreliable. This distrust is expressed in the following words:—"All the MSS. of these authors are, I suppose, posterior by many centuries to the confusion of *v* and *b*: this would not impair their testimony when they represent *v* by *ου*, while the change of *ου* into *β* would be in accordance with the tendencies either of pronunciation or of its expression."

This is only a special case of the great general question which must be present in the mind of anyone who prosecutes any inquiry into the transliterations of Latin words by Greek authors. Is it possible to attain satisfactory assurance that, in dealing with those

[1] I refer especially to the views expressed by Mr. Roby in his Latin Grammar, and to the well-known work of Seelmann on Latin Pronunciation, as well as to the incidental but important statements in Dr. Friedrich Blass's work on the pronunciation of the ancient Greek.

2000267

Greek forms of Latin names, we are dealing with the forms employed by the authors themselves, and not with those employed many centuries later by the scribes who copied the MSS.? Unless it can be shown, for example, that the transcription of Latin *v* by Greek *β* in the MS. of an ancient author is in accord with the practice of his own time, there must always remain the possibility that this transliteration is due to scribes who copied the MS. in the sixth century or later, a period at which the Latin *v* is admitted to have had the sound of the English *v*. So long as such a possibility exists, no argument of any value can be drawn from transliterations in purely literary documents, and Mr. Roby's reservation is amply justified.

I began a collection of transliterations from literary sources some years ago, but, faced by the difficulty of proving the evidence to be contemporary, I desisted from further work on the subject. It seemed as if no satisfactory conclusion could be drawn from that particular form of inquiry. When, however, Dr. Eckinger's work came into my hands not very long ago, I noticed a general tendency to agreement with the data which I had obtained from the purely literary source. I proceeded, therefore, to bring the inquiry as near completion as possible, with a view to discovering by the test of comparison whether the purely literary data, which profess to originate at a certain age, are in accordance with such inscriptional data as are without any question of that age. It seemed that it would thus be possible to prove or disprove the *original* character of the transliterations in the received texts of ancient authors. If their original character could be proved, the results promised to be valuable, not merely on the question of pronunciation, but also with regard to the ultimate age of the texts which are now extant. Reference will be made later in this paper to the general results of this branch of the enquiry.

Before, however, turning to these results, it may be well to say a word as to the nature of the evidence on pronunciation which transliteration (or transcription) affords. It may be urged—indeed, it has been urged—that it cannot lead to satisfactory scientific results, because it is of the nature of an argument from the unknown, the pronunciation of ancient Greek, to the unknown, the pronunciation of ancient Latin.

But the method is essentially a comparative one. It does not take its premisses exclusively from the one or the other language. It works by mutual elimination, enlarging the area of the negative

and narrowing the area of the positive, until in the case of most of the sound signs in the two languages something like precision is attained.

Turning once more, after this brief digression, to the evidence of Dr. Eckinger, I may say that I have completed his data by evidence taken from those volumes of the Corpus of Greek Inscriptions which have been published since his book was given to the world, but, in so doing, I have confined myself to the record of those proper names which are variants in respect to transliteration. The constants, that is, those proper names the transliteration of which remains the same in form from the time of their first appearance in Greek literature up to the end of the third century A.D., are satisfactorily established on the evidence adduced by Dr. Eckinger, and, in point of fact, the evidence since available is entirely in agreement with that cited by him.

For the purpose of the comparison of inscriptional and literary transliterations the decisive evidence must be drawn from the variants. Of the constants it may be stated that they appear in the received literary texts in the same form as in the inscriptions. Such instances of variation from the inscriptional form as occur in literary texts are so very exceptional—in some cases absolutely unique—that they may safely be ascribed to the error of a copyist. It must be understood throughout this article that by "received texts" is meant the printed texts (Teubner series, where not otherwise stated) of the present day.

MSS. of the authors who come into question in this present consideration are very rare in England, and, at present, I have only had the opportunity of examining one, that of Plutarch's Lives in the Bodleian Library. The collations of texts printed in the Teubner series are, however, very full.

The variants in transliteration may be divided for our present purpose into four classes:—

A. Those which present two or more forms whose uses were separated from one another by a more or less distinct cleavage with respect to time: that is to say, when one form of transliteration was employed, the other form or forms were not in use.

B. Those which present two or more forms which overlap in respect to a certain period, that is to say, a period during which both were employed, while before that period the one form was in exclusive use, and after it the other form or forms were employed.

C. Those which present two or more forms in contemporary use, though at one period one form, at another another form was more commonly employed.

D. Those which present two or more forms indifferently employed at all times.

For the purpose of testing the dates of the transliteration in the received texts, Classes A, B, and C are all of them important, but in descending order.

Thus far I have been speaking of variation in individual proper names. But we must also take into consideration that wider form of variation which consists in the diversity of the transliteration of certain letters or combinations of letters at different periods. This is much less precise as evidence, and therefore much more difficult to deal with, save in the case of one letter, namely, that with which we are at present concerned, the Latin *v*.

I will now turn to the evidence of the inscriptions with regard to those forms of variation, and will compare in each case the inscriptional evidence with the facts existent in the Greek texts of certain authors.

The authors whose texts are of importance in this present inquiry are Polybius, Dionysius of Halicarnassus, Diodorus, Josephus, Plutarch, and, with certain reservations which will be subsequently made, Appian and Dio Cassius. It will also be necessary to deal with the transliteration in the Oxyrhynchus and Fayûm papyri. The important period is that of the two centuries before Christ and the first century after Christ; and it so happens that the period is well represented by authors whose subjects made it necessary for them to transcribe Latin proper names.

Polybius' exile dates from 167 B.C., and the Roman portion of his work, at any rate, was probably written about the middle of the second century B.C. Dionysius of Halikarnassus and Diodorus wrote during the second half of the first century B.C.; Josephus and Plutarch during the second half of the first century A.D. Part of the work of the latter may fall within the second century.

The simplest mode of instituting a comparison between the inscriptions and the received texts of these authors will be, perhaps, to take first the inscriptional transliteration, and the nature and date of its variation; secondly, to state the form in which the transliteration *should* therefore appear in the texts of the

authors cited between 200 B.C. and 100 A.D.; thirdly, to state in which form it actually *does* appear in the texts of those authors.

(For details refer to Table I, at the end of the paper.)

1. Φλαούιος as a transliteration of Flavius is not found in inscriptions before 62 A.D. Φλάβιος first occurs in the Augustan period. In the authors cited it should not therefore appear before Josephus.

In point of fact it appears in Dionysius of Halikarnassus. Diodorus has the form Φλαΰϊος, whose date of origin is not determinable.[1]

In Plutarch the *ου* transliteration appears, as it should, according to the inscriptional evidence, side by side with Φλάβιος.

The *ου* transliteration is the only form found in Appian and Dio Cassius.

2. Cæcilius: In inscriptions Καικέλιος, 250–80 B.C.; Καικίλιος, 68 B.C.—260 A.D. The earlier form should, therefore, appear only in Polybius. In point of fact this is the only author in which it does appear, though the form Καικιλιος is also found in his received text. The name does not occur in Diodorus and Josephus. In Dionysius, Plutarch, Appian, and Dio Cassius the form Καίκιλιος alone is found.

3. Apuleius: In inscriptions the forms Ἀππόληιος, Ἀπόληιος occur from 120 B.C. to 30 A.D. The form Ἀππουληίος is found from 14 A.D. to the second century A.D.

This name only occurs, as it happens, in Plutarch, Appian, and Dio, and in its later form, as it should appear, according to the evidence of the inscriptions.

4. Lucullus: The form Λεύκολλος is found in inscriptions from 88 to 30 B.C. The form Λούκουλλος is later than the last date. Neither form occurs many times in inscriptions, and therefore it is possible that the earlier form was used for some time after 30 B.C.

In Polybius the earlier form only is found. In Diodorus the later form only is found. In Josephus the earlier form appears. In Plutarch the later form is common, and the earlier form only

[1] All that can be said of this *αυ* transliteration for Latin *av* is as follows:—It appears quite early, e.g. Avianus, Ἀυιανός (Cyprus, 31 B.C.–14 A.D.); Avillius, Αὐίλλιος and Ἀουίλλιος (both temp. Tiberius); Flavianus, Φλαυιανός, twice in second century A.D.; Flavius, Φλαύιος, twenty-three times from first to third century A.D. It is less common than *αου*. Dr. Eckinger seems to think that it is of later date, but the hard facts which he gives fail to bear out that assumption.

occurs in one instance, which, as standing by itself, may be a copyist's error. In Dio the later form alone is found.

5. Mummius: An earlier form Μόμμιος appears in inscriptions from 146 B.C. up to the first half of the first century A.D. In Plutarch the name appears as Μόμμιος, in Appian as Μούμμιος. In the other authors the name does not occur.

6. Publius: The earliest form in the inscriptions is Πόπλιος; but a later form Πούπλιος appears in the time of Claudius and Nero, and after this time the two forms exist more or less side by side.

In Polybius and Dionysius the earlier form alone appears. In Diodorus' text both forms are found; in Josephus the later form only; in Plutarch both forms; in Appian the earlier, and in Dio the later form.

7. Lucius: Up to the time of the Christian era the form Λεύκιος is the only form in inscriptions. A later form Λούκιος then makes its appearance. In the first century A.D. Λεύκιος : Λούκιος :: 49 : 51; in the second century :: 34 : 66.

In Polybius and Dionysius the earlier form in *ευ* alone occurs. In Diodorus both forms are found, the *ευ* being the more common. In Josephus and Plutarch both forms occur. In Appian the form with *ευ* alone is found. In Dio the form with *ου* alone occurs.

8. Quintus: Earlier form in inscriptions is Κόϊντος, a later form Κόϊνιτος not appearing before 50 A.D., after which the two forms coexist for a time.

In Polybius, Dionysius, and Diodorus the earlier form alone is found. In Josephus both forms occur. In Plutarch the earlier form occurs, save in one case, where a form in *ου* is found. In Appian the earlier and in Dio the later form alone occurs.

It will, I think, be seen that the resemblance between the data obtained from inscriptions and those obtained from the received texts of authors is very striking.[1]

When we take a test of comparison in which the instances are large in number, I refer to the *ου* and *β* transliterations of the Latin *v*, we find a correspondence between the dated inscriptions and the received texts which is far more close and far more striking than any of the cases which have already been cited.

This dual form of transliteration makes its appearance first in the second century B.C., though cases of *β* transliteration are rare

[1] v. Table II at end of the paper.

in that century, and the sum of the cases of both forms of transliteration is not large. In the first century B.C. a much larger number of *β* transliterations are found; and in the first century A.D. and the succeeding centuries they are quite common. But it must be accounted remarkable that the earliest transliterations of the Latin *v* which are extant, those of the first half of the second century B.C., show both forms, though the *ου* form is the one which prevails at that time.

We may now turn to a comparison of the statistics of the use of these two forms in those inscriptions which can be dated, with their occurrence in the received texts of authors contemporary with the inscriptions.

In the second century B.C. the Latin *v* is transliterated by *β* in 27 per cent. of the names which appear in inscriptions. But the data are few in number, only 11 in *ου* and 4 in *β*. In Polybius, who wrote in that century, the *β* transliteration occurs in 14 per cent. of the cases afforded by his work.

In the first century B.C. the *β* transliterations as compared with the *ου* transliterations amount in inscriptions to 34 per cent. In Dionysius of Halicarnassus they are 30 per cent.; in Diodorus they are 36 per cent.

The case of Strabo is a special one. Very few personal names appear in his work. It is impossible to treat geographical names as affording on this question evidence as reliable as that afforded by personal names. The pronunciation of the Latin geographical names of North and Middle Italy, of Gaul, and of Spain, the only regions from which names uncontaminated by Greek influence may be selected, cannot possibly have been as well known as that of the Latin personal names, which would necessarily be far more frequent in men's mouths. Moreover, a geographer like Strabo or Ptolemy would probably have recourse, and especially in those regions, to such Greek maps as existed at the time. Strabo might, indeed, be omitted from calculation on the question of pronunciation.

In the case of the other authors I have confined my calculations to personal names. Still, I may state that in Strabo, mainly in geographical names within the areas I have specified, the *β* transliterations form 20 per cent. of all the transliterations of the Latin *v*.

Turning to the first century A.D., the *β* transliterations form in the inscriptions 29 per cent. of the transliterations in *ου* and

β. In Josephus they are 31 per cent.; in Plutarch they are 49 per cent.

It must be remembered that the statistics of inscriptions quoted from Dr. Eckinger are taken from all parts of the Roman world. There will be occasion to show that, had the data been taken from Greece alone, the home of Plutarch, the percentage of β transliterations would have been considerably increased.

In the second century A.D. the β transliterations in inscriptions form 33 per cent. of all the transliterations in *ου* and β. A comparison with the received text of Appian is impossible, and with that of Dio Cassius would be misleading for reasons which will be stated hereafter.

I venture to think that these data, and especially the close correspondence between the transliterations of the Latin *v* in dated inscriptions and in authors contemporary with them, lead to the conclusion that the received texts of the present day go back in respect, at any rate, to transcription, to a genuine ultimate origin contemporary with the authors. It might seem, perhaps, on general considerations, that transliteration would provide a fertile source of error to scribes who copied MSS. at an age when transliteration had in certain important respects completely changed. Yet the facts of the case seem to show that such errors have been very rarely made. The exact significance of this consideration in reference to the general reliability of the received texts of the authors concerned is a question rather for the palæographer than for the philologist. The correspondence between the texts and the inscriptions cannot be due to a series of consistent accidents. Nor can it be due to deliberate acts on the part of the collator, for most of these texts were collated before the evidence on this particular question had been gathered from the inscriptions.

It is most satisfactory to find that modern editors have taken very few liberties with the transliterations. I have not as yet gone through the details of all the collations, but, as far as my present experience goes, notes such as "Βετούριος MSS., ego Οὐετούριος," in the collation of Plutarch in the Teubner edition, are, happily, very rare.

With regard to the individual manuscripts of authors in which transliteration is common, I should like to suggest that transliteration may afford indications of the date of the originals from which the extant MSS. are severally descended.

This is a digression from the course of inquiry in which I have

been engaged, and, so far, I have only had time to collect the statistics in Niese's collation of the MSS. of Josephus. The results of this preliminary test promise that the inquiry will prove interesting, and I hope, all well, to follow it out.

I think it may be claimed with some confidence that the evidence here adduced dissipates the suspicion—which has, indeed, with some people become an assumption—that the transliteration in the received texts of authors of the centuries immediately preceding and succeeding the Christian era date from a period several centuries at least later than the authors themselves. There seems to be good reason to believe that these transliterations are in all essentials contemporary, and that they therefore afford a reliable basis for inquiry into the pronunciation of Latin during the lifetime of the respective authors.

CHAPTER II.

The Transliteration of the Latin *v*.

The second century A.D. only provides us with two authors in which the transliterations of Latin names are at all common, and the received texts of both of these authors present peculiarities which make it difficult, if not impossible, to draw from them conclusions as to the prevalence of the two forms of transliteration of the Latin *v* at that period. The evidence for the second century must be taken from the inscriptions.

In the case of Appian the peculiarity is at present inexplicable. It is a striking peculiarity, and, if original in the MSS. of Appian, may possibly be very significant. It consists in the use of the sign 8 to represent transliterations of the Latin *v*. That sign is, of course, common in the texts of other authors, and is, so I am informed, as old as minuscule writing in the MSS. of Greek authors. But it is ordinarily used as an abbreviation of *ov*, quite regardless of whether that *ov* is a transliteration of *v* or not. Its use in this special and exclusive form in the text of Appian is, so far as I have been able to discover, unique. That it is used in some of the MSS. of Appian in this connection is shown by the notes in Dr. Ludwig Mendelssohn's text; but what I cannot discover without reference to the MSS. themselves is whether it is

used *exclusively* for this particular transliteration. The form is so common an abbreviation of the ordinary *ov* that its existence in the MSS. would not be necessarily noted in the collection of variations of readings. It is possible that I may be able during the coming Easter vacation to examine certain MSS. of Appian at Paris and elsewhere. I cannot discover that any exist in England. If the peculiarity in the received text is a mere convention of the editor's own invention, it is a regrettable feature of that text.[1] Though it is not possible at this moment to make any pronouncement as to this peculiarity, it may be well to call attention to the fact that Appian's text shows a strong tendency to archaism in transliteration, that is to say, to a preference for the earlier forms. There is not an instance of the transliteration of any personal names containing *v* with *β*. In transliterating the proper names Quintus, Lentulus, Lucius, and Publius, the earlier form is used, though in all these cases the later forms existed in the previous century, and are used by Dio Cassius later in this second century. Appian's subject may have suggested archaism in form, and, as will be hereafter seen, convention may well have had an influence upon him. It must be noted that he was an imperial official; he served as procurator, probably, it would seem, in Egypt, though possibly elsewhere.

The peculiarity of Dio Cassius consists in the fact that, whereas in authors of the first century B.C. and the first century A.D. the *β* transliterations form from 30 to 49 per cent. of the transliterations of the Latin *v*, in Dio they form but 9 per cent.

The case of the text of Dio Cassius presents less difficulty to one who has examined the peculiarities in this transliteration which are observable in the previous centuries. It is probably to be explained by the life and career of the author himself. He was an official and the son of an official. His father was governor of Dalmatia and Cilicia. He himself was prætor in 193, and twice consul, the second time in 229. Later he served in several provincial governorships. Though the earlier period of his life

[1] I have purposely left this passage in the form in which it was originally written. Since I wrote it, Mr. J. D. Quirk, of Brasenose College, has been kind enough to examine for me two fragmentary MSS. of Appian in the Bibliothèque Nationale at Paris. He reports that the 8 sign is *not*, in those MSS., confined to *ov* transliterations of Latin *v*. It looks therefore as if the usage in the Teubner text were a private convention of the editor of that text. If that is really the case, I can only repeat that it seems to me to be a very regrettable convention.

falls in the second century, his historical work was written in the third century (211–222). In his transliteration of the Latin *v* he would naturally tend towards the official form.

Before making any attempt to account for the peculiarities of Dio Cassius, it will be well to turn to certain original documents of the first, second, and later centuries, the Oxyrhynchus and Fayûm papyri, so far as they have been published by Dr. Grenfell and Dr. Hunt. The striking feature about them is that they contain only two instances of *β* transliteration in such documents as are dated earlier than the sixth century, and these are Σιλβανός, which is found in a document of 325 A.D., and Σερβαῖος in a document of 288 A.D. Roman names attached to private individuals are rare in these Egyptian documents, with the exception of the name Aurelius, which is very common.

The following names transliterated with *ου* appear in documents of the first four centuries A.D.:—

Imperial		Consular only.		Neither.	
Φλαούιος	4 times.	Σερούιος	1 time.	Σαλουίστιος	1 time.
Νερούα	3 ,,	Οὐέττιος	1 ,,	Οὐεργίλιος	2 ,,
Σεουήρος	6 ,,	Οὐεστεῖνος	2 ,,	Οὐίκτωρ	1 ,,
Οὐεσπασιανός	4 ,,			Οὐαριανός	1 ,,
Οὐαλέριος	6 ,,				
Οὐαλεριανός	1 ,,				
Οὐήρος	4 ,,				
Οὐιτάλιος	1 ,,				

Of those names which are neither consular nor imperial, it is noticeable that all, Salvistius, Vergilius, Victor, and Varianus, are akin respectively to the names Salvius, Vergilianus, Victorinus, and Varius, all of which are found on the consular lists of those centuries.

As far as *instances* of usage are concerned, it is noticeable that 29 are in imperial and 4 in purely consular names. Only 5 are in neither category.

The statistics themselves suggest, what is the actual fact, that these names occur in the vast majority of cases in the dating of documents by the years of the reign of an emperor, or by the name of the consul for the year, or, in one instance at least, by both. I am informed that this peculiarity of transliteration is observable in the papyri at the British Museum which belong

to these early centuries. They also, without exception, emanate from Egypt.

In order to arrive at some explanation of that exceptional phenomenon apparent both in Dio Cassius and the papyri, it is necessary to turn to the consideration of certain general phenomena apparent in the transliteration in authors and in inscriptions.

The phenomenon noticeable in Dio and the papyri, namely, the rareness or complete absence of the *β* transliteration in the second and third centuries, seems to be seriously at variance with the data of contemporary inscriptions. It is noticeable that in the inscriptions of the first four centuries A.D., that is to say, of those which afford an ample number of instances from which to form an induction, the *β* transliterations, as compared with those in *ου*, show the following series of percentages:—

1st	century	A.D.,	29.
2nd	,,	,,	33.
3rd	,,	,,	41.
4th	,,	,,	48.

In the first century B.C. the percentage is 34; but the instances from which to form the induction are much less numerous.

It is worthy of remark that there is an actual set-back of 5 per cent. in the first century A.D., and a small increase of 4 per cent. in the second century, rising to an increase of 8 per cent. in the third, and a further 7 per cent. in the fourth.

Another phenomenon of a general character observable with regard to the Greek inscriptions relating to Roman affairs is the remarkable increase in their numbers at a time dating from the age of Nero or thereabouts, and under the Flavian Emperors.

A comparison of the above phenomena shows that the set-back and slow rate of increase in the *β* transliterations is contemporary with and immediately subsequent to this period.

Now unless Roman officialdom was exceptional among the officialdoms which have existed in the world, it would tend to develop convention in form—in transliteration as in other matters. In the particular case of transliteration this tendency would, of course, be opposed, and especially in those Greek-speaking lands where Latin was best known, by the antagonistic tendency to transliterate by the native letter which most nearly conveyed to the native ear the particular sound in Latin.

Hence official convention could never develop a rule. It could not develop more than a tendency.

A most marked characteristic of official convention is the preservation of early forms. That *ov* is the earliest prevalent transliteration of the Latin *v* is not disputed. Official convention would tend to preserve this form, and official convention would display an increase of power at a period when examples of official documents greatly increased.

When we take into account also ordinary unofficial convention, which would also tend to perpetuate the early predominant form, we are able to appreciate the phonetic force which produced the *β* transliteration despite the strength of the tendencies by which it was opposed.

The evidence that such an official tendency was developed, apart from that of the papyri, which may, in a sense, be called as witnesses in their own case, is somewhat strong.

I must preface what I am going to say by pointing out that the names commonly used in the dating of years, i.e. under the Republic the consular names, and under the Principate the names both imperial and consular, would, if my hypothesis be correct, display a preference for the *ov* transliteration.

In the authors up to and including Plutarch 24 separate consular and imperial names and 47 unofficial names containing the Latin *v* are found. Of the official names 10 are transliterated with *ov* and 4 with *β*. Of the unofficial 20 with *ov* and 20 with *β*. Ten official and 7 non-official names present instances of both transliterations. As far as the number of *instances* is concerned, there are 58 cases of official names, of which 66 per cent. show *ov*, 22 per cent. show *β*; the remainder *ov* and *β*. The unofficial occur in 64 instances, of which 55 per cent. are in *ov*, 42 per cent. in *β*, the remainder in *ov* and *β*.

It seems impossible to regard these facts as purely accidental. The tendency in transliteration to adopt the *ov* form in the case of official is obviously more marked than in the case of unofficial names.

If we turn to the author Plutarch, in whom the tendency to the *β* transliteration is most marked, the evidence is still more striking. A further reason for citing the evidence of Plutarch on this question is that advocates of the *w* pronunciation of the Latin *v*, well aware that his transliterations in *β* constitute a great difficulty in the establishment of their theory, have always sought

to explain them away, usually on the ground that the transliterations in his received text are not contemporary with the author himself.

I will first take the statistics of individual names, and then those of the number of instances in which they occur in Plutarch.[1]

Of consular and imperial names prior to Plutarch's time, and containing the letter *v*, 28 appear in his works. Of these, 12 are transliterated by *ov* only; 8 are transliterated by *β* only; but, of these last, 3 are names which, prior to Plutarch's time, appear on the last occasion in the consular lists of 210 B.C., 228 B.C., and 125 B.C. respectively. Eight names are transliterated by both *ov* and *β*, there being 49 instances of *ov* and 31 of *β*.

Of unofficial names containing *v* there are 25. Of these, 10 are transliterated by *ov* only, 14 by *β* only, 1 by both *ov* and *β*. When we take the *instances* in which these names occur in Plutarch, the contrast is much more striking.

There are 243 instances of official names containing *v*. Of these 181 are transliterated in *ov* and 62 in *β*; whereas of 103 instances of unofficial names, only 33 are in *ov*, while 70 are in *β*.

The information in Dr. Eckinger's work only permits of calculations being made in the case of separate names. From his data the following statistics are obtainable:—

Percentages.

	ov	*β*	*ov* and *β*
Official	21 ...	6 ...	73
Non-official	44 ...	37 ...	19

It can hardly be doubted that if statistics of the number of instances were attainable, they would, as in the case of authors, afford still more striking evidence of the official tendency. Nevertheless, it is noticeable in the above table that only 6 per cent. of official names are found in *β* only, whereas in the case of non-official names the percentage is 37; and, again, 94 per cent. of official names are found with the *ov* transliteration, whereas only 63 per cent. of unofficial names are so transcribed. Official convention is, phonetically speaking, an artificial tendency. The statistics show that even in the first century A.D. the natural tendency was to transliterate the Latin *v* by *β*. There are at least

[1] v. especially Table IV at the end of the paper.

two striking individual cases of the official tendency. The name Valerius, the most common name on the consular lists, is very rarely transliterated by *β* either in authors or in inscriptions, and its *ου* transliteration is very persistent, so that we find it so late as the second half of the sixth century. Vespasianus does not appear in transliterated form before the reign of this emperor, and is never found in inscriptions save with the *ου* transliteration. A comparison of these conclusions with the peculiarities existent in the Egyptian papyri and in Dio Cassius will, I think, suggest that the peculiarities in the literary documents are due to official convention. It seems more than probable that the *ου* transliteration continued to be used long after it had ceased to convey the true sound of the Latin *v*.

I must now proceed to call attention to another tendency, which is not less clearly marked and not less important than the one which has just been discussed.

In Dr. Eckinger's work is a table of statistics of the transliterations of the eleven names containing the Latin *v* which are most common in Greek inscriptions, arranged according to locality. This table I have supplemented by materials from the recently published volumes of the Corpus.[1]

These localities may be arranged in classes, according to the knowledge of *both* the Greek and Latin languages which we may estimate to have existed in various regions in the first century B.C. and in the early centuries A.D.

I put in the first class Athens and the rest of Greece; in the second class Rome, Italy, Macedonia, Thessaly, and Asia Minor; in the third class Thrace, Russia, the rest of Europe, the rest of Asia, and Africa. The inclusion of Rome in class ii is perhaps disputable, but were it placed in class i it would have little effect on the statistics which I am about to give.

In class i the *β* transliterations are 61 per cent. of the whole, against 39 per cent. of *ου* transliterations.

In class ii they are 36 per cent., against 64 per cent. of *ου*.

In class iii they are only 23 per cent., against 77 per cent. of *ου*.

It is, therefore, the case that the percentage of *β* transliterations is in a scale descending in accordance with the knowledge of Greek and Latin which we may presume on satisfactory grounds to have existed in the various regions in which the inscriptions have been found. It is, perhaps, unnecessary to say that a

[1] v. Table VI at end of paper.

knowledge of *both* languages must be postulated for the purposes of this calculation. I think it must be assumed that this phenomenon is due to what I may call a natural phonetic tendency antagonistic to that tendency of official and general convention to which reference has been made. It is possible that this tendency on its negative side aided official convention in producing the peculiarities of the limited series of transliterations found in the Egyptian papyri.

It is to this tendency that we must attribute the fact that Plutarch, a native and resident in a region in class i, transliterated 49 per cent. of the names containing *v* in *β*, whereas Josephus, a contemporary, but a resident in a region of class iii, transliterated only 31 per cent. of such names in *β*. The revolt against official convention is most marked in those lands where the two languages were best known—a fact which we cannot ignore in estimating the phonetic value of the Latin *v*.

But we have seen that the revolt against the *ου* transliteration began, alike in inscriptions and in literature, long before the Christian era.

The question naturally arises whether any phonetic law or phonetic tendency can be distinguished in the *ου* and *β* transliterations respectively. Dr. Eckinger, after consideration of the facts which he has collected from the inscriptions published at the time at which he wrote, sums up the matter as follows:—

"We cannot argue the predominance of *ου* or *β* at a particular epoch, or in certain places, or after certain vowels, except when *v* comes between two *i*'s, e.g. in Λίβιος. No rule prevailed for either form: e.g. we find both forms upon the same stone. The only theory which can be maintained is that *β* before or after *α* became common outside Greece and Italy before it did in those lands; but in the second and third centuries A.D. the opposite became the case, so that, for example, Greece at the time preferred *β*" (in this combination of sounds). "It cannot be said whether this is due to some special pronunciation of the Greek either in Greece or Asia Minor."

I have already produced evidence which suggests a modification of the conclusions at which Dr. Eckinger arrived. The *β* transliteration is undoubtedly a marked local characteristic in Greece. The predominance of *ου* at a certain period and of *β* at a later period is demonstrable. The prevalence of the *β* transliteration may be further shown from the inscriptions of Olympia.

	No. of Names.	Names in *ov*.	Names in *β*.	No. of Instances.	Instances in *ov*.	Instances in *β*.
1 cent. B.C. ...	1	1	0	1	1	0
1 cent. A.D. ...	4	3	1	9	3	6[1]
2 cent. A.D. ...	8	3	5	20	3	17
3 cent. A.D. ...	7	0	7	23	0	23

This seems to indicate that at Olympia in the second century the *β* transliteration was predominant, and in the third century universal.

It must be remembered that Dr. Eckinger wrote under the pressure of that weight of authority which had definitely pronounced against the *v* sound of the Latin *v* at any time anterior to the fifth century A.D. Also he had not at his disposal the data furnished by the recent volumes of the Corpus of Greek Inscriptions, which deal with material from North Greece, from the Islands, and from Olympia.

As to phonetic law, in the strict sense of the term 'law,' I agree with Dr. Eckinger that none is discernible as determining the uses of *ov* and *β* respectively.

But phonetic *tendencies* are certainly apparent.[2] There is, for instance, a certain general tendency in the case of Latin *v* medial to transliterate by *β*. This contrasts with the tendency in the first century to transliterate Latin *v* initial by *ov*.

In the authors Polybius, Dionysius of Halicarnassus, Diodorus, Josephus, Plutarch, and Dio Cassius, there are fifty-five Latin personal names containing *v* in which the *β* transliteration is found. Of these *v*'s eighteen are initial and thirty-seven medial. In inscriptions used by Dr. Eckinger and those published since Dr. Eckinger wrote there are fifty-six such names, in which the *v* is initial in thirty-one and medial in twenty-five cases.

It may be well in reference to these statistics to call attention to a consideration which must be borne in mind in estimating the comparative value of the evidence of the inscriptions and the authors on the question of transliteration. It is reasonable to suppose that convention would have greater, and phonetic evolution less influence with an engraver of an inscription than with an author. To five, at least, of the above authors, Greek was his native tongue, which would not by any means be necessarily the

[1] The three names in *ov* are all official; the other is not.

[2] v. Table IX at end of paper.

case with the engraver; and, again, the less educated ear of the latter combined with the influence exercised by examples in previous inscriptions would tend to render him less appreciative of sound modifications.

A strong tendency is shown to maintain *ov* before the so-called 'hard' vowels, *a*, *o*, *v*, followed by a liquid.

In the first century A.D. we find in these combinations of letters in Josephus and Plutarch eleven names with *ov* alone, one with *β* alone, and two with both forms.

In inscriptions of the same period we find five with *ov* alone, one with *β* alone, and two with both forms.

Before the vowels *e* and *i* followed by a liquid the tendency is by no means so marked, and cannot indeed be said to demonstrably exist.

The figures are—(*a*) in authors, eight in *ov* alone, seven in *β* alone, two in both forms; (*b*) in inscriptions, five in *ov* alone, one in *β* alone, two in both forms.

Before the endings *-ius*, *-ia*, *-ianus*, a tendency is shown to transliterate by *β*. The figures are—(*a*) in inscriptions, three in *ov*, seven in *β*, six in both forms; (*b*) in authors, one in *ov*, six in *β*, five in both forms. The modification of a *w* sound in proximity with this Latin *i*, i.e. the high front wide vowel,[1] would be a natural tendency. The raising of the back of the tongue to produce a *w* sound would tend to decrease, and the sound evoked would be first a bilabial spirant *v* and ultimately the labio-dental spirant *v*, i.e. the *v* of English.

There are two other tendencies suggested by the statistics, tendencies which cannot, however, be reliably demonstrated, because the examples are too few in number.

The cases of *v* before a vowel followed by the sibilant *s* suggest that the *ov* transliteration was maintained in this combination.

In the authors there are two transliterations in *ov*; one valid, and one uncertain in *β*. In inscriptions there are three in *ov*, and none in *β*.

The same tendency to maintain *ov* is suggested by the few cases of *v* followed by a vowel and a labial. In the authors of the first century A.D. there are three cases with *ov* alone, none with *β*. In inscriptions there are two with *ov* alone, and one with both *ov* and *β*.

[1] Sweet's Primer of Phonetics, p. 107.

I have spoken of phonetic tendencies rather than phonetic law, in order to be free of the charge of drawing conclusions of a greater precision than is warranted by the actual evidence. But these indications of phonetic law become much more significant when we consider that the evidence for them is obscured by the tendency of convention (both official and ordinary), and by the local tendencies of regions where the knowledge of *both* Greek and Latin was defective, but from which nevertheless some of the data have been drawn.[1]

The existence of phonetic tendencies of this character must be taken as indicating that the pronunciation of the Latin *v* in the century preceding and the century succeeding the Christian era was *not* uniform, but varied according to the sounds with which it was combined, and must indicate, moreover, that the ear of the Greek-speaking world distinguished these variations as being more clearly represented in one set of instances by *ου* and in another by *β*: that is to say, the *ου* and *β* are not merely interchangeable alternatives, but actually represent different sounds.

Their apparent interchangeability in certain instances is due to a cause which is *not* phonetic—the struggle between the later transliteration in *β* and the persistent tendency of convention to employ the originally predominant transliteration in *ου*, even in cases where it had ceased to represent the contemporary pronunciation of the Latin *v* in some particular phonetic environment.

CHAPTER III.

The Pronunciation of Latin *v* in the Augustan Age.

We are now in a position to consider the question of the pronunciation of the Latin *v* during the Augustan age.

Many of the learned discussions which have been published on this subject treat the choice between the sounds of English *w* and English *v* as a mutually exclusive choice. But the most ardent advocates of the *w* pronunciation admit that this sound became eventually a *v* sound. There is no evidence of such change

[1] Dr. Eckinger's evidence on the localities of transliterations is by no means complete.

having been sudden or deliberate. It seems to have followed the natural and usual phonetic course of an infinite series of modifications of the original sound tending towards the sound ultimately developed. It is difficult to express in satisfactory scientific language the infinite series of intervening modifications, but it is, at any rate, not misleading to say that, during this interval, both the *w* and the *v* elements must have been present in the pronunciation of the Latin *v*, the former becoming weaker and the latter becoming stronger as time went on. No sane person could for one moment suppose that the learned advocates of the *w* sound are oblivious to this progressive series and its corollaries, but nevertheless their discussions have an unfortunate tendency to take a form in which the element of progressive development either does not appear or is not given its due prominence in the problem under treatment.

As far as the evidence of transliteration is concerned, Dr. Emil Seelmann, in his work on the pronunciation of Latin,[1] expresses himself as follows:—"The Greek transcription of the *v* by *ου* or *β* deserves no special consideration beside the other evidence and arguments for the determination of the sound." It may be doubted whether Dr. Seelmann would have expressed himself so positively had he had Dr. Eckinger's book at his disposal, and had he compared the evidence of the inscriptions with that taken from contemporary authors.

Professor Lindsay, in his work on the Latin language, has used Dr. Eckinger's work, but confines himself, as far as transliteration is concerned, to the evidence of the inscriptions. Mr. Roby, in his singularly lucid discussion of the question contained in his well-known Latin Grammar, does not ignore the transliterations in the texts of authors. He recognizes that the *β* transliteration is one which must be explained or explained away. He argues that the *β* of this period had not the sound of the labio-dental *v*. He does not think that those who believe the *β* of modern Greek to have the labio-dental sound of the English *v* are right; but on this latter point his information appears to be second-hand. He is of opinion, as it would seem, that the Greek *β* of the first century A.D. was, and that of the twentieth century A.D. is, in respect of sound, a bilabial *v*, which, as he very rightly says, stands in as close a relation to English *w* as to English *v*.

[1] "Die Aussprache des Latein nach physiologisch-historischen Grundsätzen," von Emil Seelmann, p. 241.

It is my intention to discuss Mr. Roby's clearly stated arguments *after* the conclusions from the evidence of transliteration have been stated, because it will, I think, be found that such of those arguments as are valid point to conclusions in accord with the transcriptional evidence. But, as far as the *β* of modern Greek is concerned, either Mr. Roby is mistaken, or a very large number of people who have studied modern Greek, have heard it spoken, and have spoken it themselves, are grievously in error, and this, too, on a point which is of peculiar interest to the classical scholar. I have been accustomed to hear modern Greek spoken at frequent intervals during the last fourteen years, and I have consulted others who have had opportunities, equal with or greater than my own, of forming an opinion on the question. Neither have they nor have I any doubt whatever that the modern *β* is practically undistinguishable from the English *v*, that is to say, is a labio-dental *v*. Were the sound a bilabial *v*, the difference between it and the English *v* would certainly strike an English ear.

There seems to be no reason to doubt that the *β* of Greek had originally the pure *b* sound. Whether the sound was still unweakened in the fifth century B.C. is a very difficult question, and one which only indirectly concerns our present purpose. What we *do* know is that the sound developed ultimately into a labio-dental *v*.

The series may be represented for convenience as *b*—*b*^{v}—*bv*—^{b}*v*—*v*, understanding an infinite and progressive series of modifications leading from the one extreme to the other. There is no evidence whatever that a *w* sound developed at any point in the series.

β must have represented some element in the sound of the Latin *v* which the *ov* transliteration did not represent. The advocates of the *w* pronunciation are quite agreed that the *ov* aimed at representing a *w* sound. But it is probable that the sound produced was not exactly that of the English *w*, but the *w* sound discernible in the French *oui*. The fact of the transliteration being *o*+*v* precludes the idea of a *v* sound in connection with the *v*. The alternative *β* transliteration must have represented some other element in the sound of the Latin *v*, some non-*w* element, if I may so call it, and as Latin *v* and also Greek *β* were both in process of evolution towards the labio-dental *v* (Eng. *v*), it must have been the *v* element in Latin *v* which the *β* transliteration represented. Surely, had this *w* sound revived in Greek in connection with the *β* the grammarians, who seem to have recognised

the sound as having been that of the original digamma, would have noticed the reappearance of this sound in connection with another letter. Yet they do not refer to such a phenomenon.

It has already been said that there seems no doubt that the original pronunciation of *β* was that of the English *b*. But it is difficult, if not impossible, to say when it began to weaken towards the spirant *v* sound. Dr. Friedrich Blass says: "That *β* was, during the Attic period, not *v*, appears sufficiently proven, in case there be still any doubt, by Plato, who calls it a mute; cf. Thaeetatus, 203*b*. *τοῦ δ'αὖ βῆτα οὔτε φωνὴ οὔτε ψόφος.*"

The context is not unimportant: "I can only reply that *s* is a consonant, a mere noise, as of the tongue hissing; *β* and most other letters, again, are neither vowel sounds nor noises."[1]

Dr. Blass also adduces in proof of the *b* pronunciation the *βῆ βῆ* of the comic drama.[2]

But his argument displays that tendency to which attention has been already called, namely, to take the two extremes of an evolutionary series, in this case *b*–*v*, in strong contrast, and to ignore the infinite series of modifications of the original sound which must have intervened between the two extremes. An exact scientific interpretation of the passage in Plato is unattainable, but there is nothing in it which precludes the possibility that the modification of the labial—the weakening, as it is called, of the sound—had already begun. Would Plato have called a *b* sound weakening towards a labio-dental *v* a "vowel sound" or a "mere noise"? Nor is the *βῆ βῆ* of the comic drama by any means convincing. The mere presence of *η* in that imitative sound shows that the Greek did not interpret it phonetically as we do at the present day. Perhaps the Greek sheep baaed in Greek, or, possibly, there has been an evolution in the speech of the animal!

In point of fact, we do not possess any conclusive evidence for or against the weakening of *β* in Greek of the fifth century B.C. Such evidence as we have for the weakening of the sound is later and is dialectic.

Dr. Blass[3] points to the fact that so early as the pre-Roman period Lakonian employs *β* in place of the digamma. He thinks that the Lakonians themselves *must* have preserved the digamma symbol with the sound, as the Herakleots of Italy did, had not

[1] Jowett's Plato.

[2] Cf. also Kratinus.

[3] Blass: "The Pronunciation of Greek" (Eng. trans.), p. 111.

the appropriate symbol ceased to be indispensable owing to the similar sound of *β*. This last may or may not be the case. But is it necessary to suppose that the sound of this late digamma was a *w* sound? In Greek generally the digamma had been modified out of existence long before this time; and, indeed, there is a period in the centuries immediately preceding our era during which we have no trace of it, though it comes to light again about the age of Augustus. Had a sound which suffered such drastic modification elsewhere shown no tendency to modify in the Dorian and Æolic dialects? It would seem strange that a sound which had been modified out of existence in Greek generally should have remained absolutely unmodified in these particular dialects. Is it not more probable that *β* in those later dialectic forms represents a modified digamma? *In any case it implies a pronunciation of β very much weaker than the English b.* What form that weakening took is another question. So far I have only been concerned in showing that such a weakening did take place before the age of Augustus—in fact, as it would seem, long before that age.

It is very difficult to come to a very definite conclusion with regard to this late digamma, and especially with regard to the sound which it represented. The facts with regard to its history, in so far as they are known, are, briefly, as follows. The sound, or traces of the sound, survived in the historical period in Æolic, Pseudæolic, and Dorian dialects.[1] It is found in certain definite localities—in Lesbos, Pamphylia, Bœotia, Elis, Argos, Lakonia, Crete, and Heraklea in Italy. But this late digamma is rarely represented by the digamma sign *F*, but by some other letter, *β* being the most common representative.

In the Æolic and Pseudæolic dialects[2] the *β* transcription of the initial digamma is found, but except before *ρ* does not appear to be more common than other transcriptions in *τ*, *γ*, and *φ*. Very few instances of these transcriptions exist. But before *ρ* we have several examples of the *β* transcription; cf. *βρήτωρ*, *βραῖδιος*, *βρόδον*, *βράκια*, the last two in fragments of Sappho. This series points to a *v* rather than a *w* pronunciation in Lesbian, *wr* being a peculiarly awkward combination of sounds. The intervocalic *F* passes into *v* (cf. *αὔως* and *φαῦος* with Lakonian *ἀβὼς* and

[1] Ahrens: "De Dialectis Æolicis et Pseudæolicis," etc.
[2] Ahrens: "De Dialectis Æolicis et Pseudæolicis."

Pamphylian *φάβος*) or is dropped altogether.. In these Æolic inscriptions there is no reason, as Ahrens points out, why the sign of digamma should have been changed, had not the sound itself changed.

In the Bœotian dialect the initial digamma is retained until a late date in literature and inscriptions—to a later date than in the Æolic dialects. Medial digamma is very rare, and between vowels is changed into *υ* or dropped.

In the dialect of Elis the actual digamma sign survives in *Ϝάργον* for *ἔργον*, *Ϝέπος*, *Ϝέτος*, etc., and in *Ϝαλήϊοι* for *Ἠλεῖοι* even on coins. We find *β* for digamma in *Βηλεὺς* (proper name), *βαδύ* (*ἡδύ*). Before *ρ* we find digamma in *Ϝράτρα*, but changed into *β* before *ρ* in *βρατάναν*.[1]

The most interesting case of the surviving digamma in the Dorian dialects occurs in the Lakonian-Tarentine colony of Heraklea, whose use of the sign suggested to Claudius its adoption into Latin. In this case it is remarkable that the Herakleots seem at one time to have cast it aside, when it is certain that most of the Greeks made use of it, and at a later time to have resumed it when in the remaining dialects and cognate languages no trace of it is apparent. It is preserved in certain words which are found in the Tabulæ Heraclienses. But there is a further phenomenon displayed by this late Herakleot digamma. It makes its appearance in the numeral *Ϝεξ* (*ἓξ*) and its derivatives, a word in which it is not found either among the Greeks or in the cognate languages. There are, indeed, traces of this pleonastic digamma in the Lakonian dialect. In that dialect the late digamma is usually represented by *β*; and at times we find *β* placed at the beginning of words which had certainly no original digamma. This would suggest an original pleonastic digamma. Other transcriptions of the digamma in the Dorian dialects are *π* in Lakonian, which is very rare; *ο* in Cretan, also very rare; *υ* in Lakonian, of which there is only one example.

In Hesychius many words which had the digamma are found with initial *γ*. Ahrens regards this as an instance of the confusion of letters.

It appears, then, that in the dialects in which this late digamma appears it is usually transcribed by *β*, less commonly by *υ*, and so very exceptionally by any other letters that we may consider them as merely accidental representatives of the original letter.

[1] Ahrens: "De Dialecto Dorica."

Of the transcription by β Ahrens says that two opinions are possible: either that β with sound unchanged, i.e. with its pronunciation at that period, took the place of the obsolete digamma, or that the digamma was actually changed into a β pronunciation. He prefers the latter explanation. Among the Lesbians the digamma changed into β before initial ρ, into υ after a vowel, and this change was not orthographic but dialectic. Nor can the change in the Dorian dialects be otherwise accounted for, for it is not intelligible why the Dorians should have blindly changed the sign if the sound had not changed.[1] Besides, why, says Ahrens, should the Dorians write ἀβώς, when the Lesbians wrote αὐώς, unless there was a difference in pronunciation? Nor do the most learned grammarians Herodianus and Heraklides discover that the β which took the place of the digamma had any other pronunciation than that of the ordinary β.

To what date or dates are we to attribute this late digamma and its transcription?

The Italiots wrote an actual digamma until the fourth century before Christ, and there is no reason to believe that it became obsolete among the Lakonians and Cretans before that date. In the following centuries the Lakonian inscriptions (though we cannot argue from them, because they do not exhibit any Lakonian peculiarities) and the Cretan inscriptions exhibit neither digamma nor the vicarious letter β. That vicarious letter is seen in certain proper names in the first century A.D.

The disappearance of dialectic peculiarities from many of the Greek inscriptions of the fourth century B.C. is due largely to the fact that Ionian lettering was adopted in nearly all the Greek states towards the close of the fifth and the beginning of the fourth century. No *F* was preserved in this lettering, and therefore those dialects which had up to that time preserved the digamma had either to express it by some other letter or to revive the digamma sign. But in the centuries immediately preceding the Christian era, not merely the original sign but also its substitutes disappeared. This phenomenon is curious, but is not apposite to the present inquiry. The sound of the digamma certainly continued to exist. The revival of the original or of some

[1] Though Ahrens' arguments on this question are, as a whole, convincing, it is not certain that this appearance of β for digamma in the Dorian Peloponnesus is dialectic. The change to the Ionian script, of which more will be said later, complicates the matter in this region.

substituted letter about the time of the Christian era cannot be attributed to any archaising tendency—to any mania for antiquity. Both Ahrens and Tudeex, however, believe that this late digamma was changed in sound from the original. The sound had survived and been modified in the speech of the masses, but, after the fourth century, had been rejected by the classes, so Ahrens thinks, because of its roughness, and hence does not appear in inscriptions either in the form of the original or of a substituted sign.

As far as the change in sound is concerned, transliteration affords certain striking evidence of a negative character. The early digamma had, as most authorities believe, the sound of the English *w*, or, as Tudeex asserts, the sound of bilabial *v*, i.e. a sound which may be best represented in English by the combination *vw*. Had this sound remained unchanged in the centuries before Christ we should have certainly expected to find at least some instances of *ov* being substituted for it where a vicarious sign is employed. *ov* is the transliteration of the early Latin *v*, whose sound was, as it is asserted, that of the English *w*. But not a single instance of this vicarious use of *ov* for the digamma is extant, though a variety of such substitutes are found. Is it not inconceivable that, if the Greek of the fourth and following centuries had been seeking for a substitute for a Greek letter whose sound was that of the English *w*, he should have failed to adopt in some instance or instances that combination *ov* by which he transliterated a Latin letter having the *w* sound? It is, indeed, wholly against probability that this late digamma was a *w* at all, and therefore *β*, when it appears as its representative, cannot be assumed to be representative of a *w* sound.

It is infinitely easier, in the case of this late digamma, to show what its sound was *not*, than to show what it was. Tudeex says: "The original pronunciation of the digamma could easily pass into the semi-vowel *v̯*, or even into the full vowel." That it did not pass into the full vowel *v* in the majority of instances, is shown by the consonantal character of the substitutes employed for it in later Greek. Even the Lesbian *v*, which takes the place of the intervocalic digamma, must have been, from its very intervocalic position, at least semi-consonantal. In the semi-vowel *v* sound we are coming very near a *v*, or, at any rate—and this is the important point—near to a sound which might, *faute de mieux*, be transliterated by a letter containing a *v* element. The variety of the representatives employed for this late digamma

indicates that the representation was not, in the case of any one of them, completely satisfactory.

I have dealt with this question of the late digamma at some length, because its representation by *β* has been used as an argument for the weakening of the Greek *β* sound towards a *w*; and it is the only evidence which can be employed to support that argument. If that evidence breaks down, as, I think, I have shown that it does, there is not one jot of evidence for any trace of a *w* pronunciation in either the Greek *β* or the Latin *b*, of which it is the all but invariable representative in transliteration. It may further be remarked that the confusion between the Latin *b* and the Latin *v*, though found in the second century A.D., did not become common until the third and fourth centuries, that is to say, at a time when, as even the most ardent advocates of the *w* sound of the Latin *v* would admit, the Latin *v* was on the point of becoming a labio-dental *v* correspondent in sound with the same English letter. If the Latin *b* had developed a weakening towards a *w* sound at an earlier period, why did not its confusion with the Latin *v* take place at an earlier date?

Eckinger, in noting the case of the transliteration of the Latin *av* by *αβ*, says:—"The Latin *v* must have sounded much harder to the Greek than *ου*. He therefore sought for another transliteration and chose *β*, which was very natural, since it appears to have had a peculiarly soft pronunciation in Greek; cf. *κατεσκεβάσα* (Lebas, v, 6, 1076, and C.I.G. 3693), *Εὐρυβάνασσα* (Lebas, ii, 4, 163*a*), *Βάνακτος* (C.I.G. 5513), etc." "Also," he proceeds, "the Latin seems to have softened the *b*, and brought it near to the *v*, e.g., in the second, third, and fourth centuries A.D. lavoratum, livido, præstavitur, sivi, desæbisse, sibe, etc" Reference has been made already to the transliteration of Latin *b* by Greek *β*. Save in very rare cases, so rare as almost to amount to a negligible quantity, the Latin *b* is transliterated by *β*.

The rare exceptional cases show *π* as a transliteration, e.g. in the special name *Πόπλιος* (Publius). That both *β* and Latin *b* were in process of weakening at the time of the Christian era, there is no reason to doubt. The weakening of *β* has been already demonstrated, and a modification of Latin *b* which produced a tendency to confusion with *v* in the second century A.D. cannot have been of recent origin. We have, it is true, no evidence whatever as to the *exactness* with which *β* represented the sound of the Latin *b* at this period.

What, then, is our knowledge, as distinguished from our *conjectures*, on this subject?

We know that the Latin *b* was tending in certain sound combinations towards the labio dental *v* of the early Romance. We know that the Latin *v* was tending in the same direction. That is the extent of our actual knowledge. But, on these facts, is it an unreasonable conjecture that the common element in the sounds of these letters which caused them to be confused so early as the second century A.D. was a *v* element?

It was the medial rather than the initial *b* of Latin which tended to weaken, as is shown by the evolution of the sound in the Romance languages; so Dr. Eckinger's remark must be understood as not applicable to the initial *b* of Latin.

We have, then, in Latin and Greek three evolutionary series of sounds, whose extremities, at any rate, are not disputed:—

1. Greek β . . . . . *b* .. *v*
2. Latin *v* (transliterated by *ov* and β) . *w* .. *v*
3. Latin *b* (transliterated by β)—
   where it weakens, i.e. in medial and final syllables, produces three modifications in the Romance languages:

   b .. .. .. *v*
   b .. .. .. *f*
   b .. .. .. disappearance.

In all these three series the outward and visible sign of a common element in the Augustan age is the Greek β; and the only traceable inward, i.e. sound element which is common to all is the sound which, in English, we represent by the letter *v*.

This β transliteration of the Latin *v* has always been recognized by the advocates of the *w* pronunciation of that letter as a disturbing element in the premisses from which they draw their conclusions. Various attempts have been made to explain it away.

Several of the most prominent writers on Latin pronunciation have utterly failed to realise the seriousness of the factor. Dr. Seelmann, in his well-known book on the subject, refuses to regard it as constituting any evidence whatever upon the question, and dismisses the matter in one short sentence at the end of a long discussion of the pronunciation of this Latin letter. When Dr. Seelmann wrote, Dr. Eckinger's work had not been published; still less had anyone attempted to compare, as has been done in the

course of this discussion of the question, the evidence of the inscriptions with the evidence obtainable from Greek authors. I venture to assert that this new evidence cannot be dismissed in a few lines in any scientific treatise of the question of the pronunciation of Latin, and that, as a corollary, Dr. Seelmann's conclusions, which form the real basis of that which has been written in English upon this question, demand reconsideration in the light of the new facts. Even Professor Lindsay, in his work on the Latin language, who *had* used Dr. Eckinger's work, speaking of this transliteration, says: "But we find β occasionally even in the first century A.D." Can the word "occasionally" be applied to a form of transliteration which in the inscriptions amounts to 29 per cent. of the numerous examples, and in the two authors of this century is represented in 31 per cent. and 49 per cent. respectively of their transliterations of the Latin *v*? Again, the words "even in the first century A.D." are most misleading, inasmuch as this transliteration appears in the second century B.C. both in inscriptions and in Polybius, and is quite common both in inscriptions and in authors of the first century before our era.

There is another explanation which has been commonly put forward with a view to meeting the difficulty caused by this inconvenient β transliteration. It is suggested that β as a transliteration of the Latin *v* was merely used because it was shorter to write and to engrave, and therefore more convenient than *ov*. The fact of such a suggestion having been made shows the straits to which the advocates of the pure *w* pronunciation have been put by the presence of this disturbing factor in their calculations. In the first place, it is obvious that the 'convenience' might be doubted. Again, how are we, under this hypothesis, to account for the phonetic tendencies which are apparent in the use of *ov* and β respectively in certain combinations of sound? How, too, are we to account for the fact that the use of β was most common in those regions where both Latin and Greek were best known, and tends to decrease in accordance with a decrease in the knowledge of the two languages in other regions of the Roman Empire. Furthermore, under this hypothesis what a strange thing it must be accounted that the authors of the first century B.C. and the first century A.D., *if they used the letter merely as a convenient alternative for ov*—a form of use in which individual choice would be absolutely free—should have happened to employ it in percentages

of cases which so singularly accord with the percentages which we find in contemporary inscriptions!

Before taking the specific objections which have been raised against the *v* pronunciation of the Latin *v*, it will be better, for the sake of clearness, to state the conclusions which may be drawn from the constructive evidence which has been adduced in this article, the more so inasmuch as some of those objections are not in conflict with these conclusions. The evidence of transliteration clearly indicates that any argument for the original pronunciation of the Latin *v* as a pure labio dental *v* (English) is at least as disputable as one which maintains that the Latin *v* was pronounced like the English *w* until a comparatively late period. The transliteration by *ου* seems to indicate distinctly that there was a period in Latin when the sound of the *v* did closely resemble that of the English *w*. There is a certain probability, however, that the *w* sound was rather that of the French *ou* in *oui* than that of the English *w*.[1] It is perhaps interesting to note incidentally in connection with this French word that, in the Swiss pronunciation of it, an initial *v* element is said to be distinguishable.

But, while admitting the existence of this original *w* sound, it must be pointed out that we have no evidence relating to a time when this sound was in a pure form in Latin. That evidence goes back to the first half of the second century B.C. At that period, though the *ου* transliteration seems to have predominated, the *β* transliteration existed. The evolution of the sound from *w* to *v* had begun, and had progressed so far, at any rate in certain combinations, as to be perceptible to the ordinary ear, and this, too, especially in Greece, that land in which the knowledge of the two languages combined would be most existent.

Before the Christian era, in the second half of the first century B.C., the evolution had made great progress, and was clearly shown in the transliterations of the time. The *v* element in the Latin *v* must have been very strongly marked at this period for it to overcome, to the extent to which it did, the force of the conventional transliteration by *ου*.

[1] The difference, so far as I can distinguish it, in the mechanical production of the two sounds consists in this, that whereas in the pronunciation of the English *w* (not *wh*) the lips come into momentary and slight contact, in the pronunciation of this French *ou* they do not. The difference is also marked by the current use of 'wee, wee' to indicate the English mispronunciation of the French word.

It is at least probable that it was this new element in the pronunciation of the literal sign which troubled the grammarians of the period, and especially those learned men whom Claudius consulted as to the revision of certain elements in the Latin alphabet. Claudius' proposal indicates in itself that even the speaker of Latin recognized a change which would be far less perceptible to him than to a Greek of that age, who compared his own tendencies in transliteration with those observable in the Greek authors of a previous period. This, again, would indicate that the change had become very marked. A good deal of capital has been made out of the fact that, under Claudius or by Claudius, the Æolic digamma was suggested as the new sign for the Latin *v*. But Claudius was seeking for a sign, not a sound. The *β* sign he could not propose to adopt, because it resembled the Latin *b* too closely in form. It would seem that it was to the Latin the *changed* sound and to the Greek the *composite* sound of the Latin *v* of the age of Claudius which caused the difficulty. Neither Greek nor Latin had any single letter which could represent the differences in the sound of the old Latin *v* caused by the fact that its evolution had been more rapid in certain sound combinations than in others, e.g., more rapid before *-ius* than before *-al*.

The time has now come to make some definite suggestions as to the actual pronunciation of the Latin *v* in the Augustan age, and to compare those suggestions with the pronouncements of the grammarians of the period.

The Latin *v* of the Augustan age is a sound in process of evolution, and one in which the evolutionary series has made considerable progress, though not, it would seem, the same progress in all combinations of sounds.

I would suggest that there is no one English letter which can by itself render the sound of the Latin *v* at this period. A combination of the letters *vw* would in all probability most nearly represent the pronunciation of Latin *v* initial; that is to say, it was a bilabial, not labio-dental, *v*.[1] Those who would argue for the pronunciation 'Walerius,' 'weni,' 'widi,' 'wici,' ignore evidence which, scientifically speaking, cannot be ignored. That evidence points to a stage in the evolution of this sound which must at least have produced at this period 'Vwalerius,' 'vweni,' 'vwidi,' 'vwici.' It is, indeed, possible on the evidence to go further

[1] The bilabial *v* can only be represented in the English system of phonetic signs by this combination of letters.

than this, and to say that in the case of most medial *v*'s and of some initial *v*'s the evolution had progressed more towards the *v* sound than is indicated by the *vw* combination of English letters which has been suggested. Attention has already been called to the fact that, especially in authors, the *β* transliteration is more common in the case of Latin *v* medial than of Latin *v* initial. I have already mentioned that, before the ending *-ius* the *β* transliteration is by far the most common, and also that it appears at a very early date: cf. the Λίβιος of Polybius. It is probable that in this termination the *i* was practically consonantal—a yod sound, and in combination with the following *v* sound would tend to modify the preceding *v*. Phonetically the tendency may be expressed as follows. The raising of the back of the tongue, an essential mechanical element in the production of a *w* sound, would tend to disappear owing to the difficulty, or, shall we say, inconvenience of passing from that tongue position to the position demanded for the production of the front vowel or semi-vowel *i*; and the *w* sound would under those circumstances be gradually evolved into a *v* sound. It is probable, therefore, that in this combination the *v* sound developed earlier and more rapidly than in the case of other combinations containing the Latin *v*, and that, by the Augustan age, the *w* sound in this particular Latin *v* before *-ius*, *-ia*, *-ium* had practically developed into the *v* sound.

On the practical question of the pronunciation of the Latin *v* in English schools I shall only speak with brevity. The pronunciation of the Latin initial *v* as a bilabial *v* (= *vw* as nearly as may be, when expressed in English characters) would possibly be inconvenient. The tendency is to choose between *w* and *v*. For the Latin initial *v* neither is correct, and either is as correct as the other. The choice is open. For most cases of the medial Latin *v*, however, the *v* pronunciation would seem, on the evidence of transliteration, to be far more near the truth than the pronunciation with the sound of the English *w*.

CHAPTER IV.

The Latin *v* in the Ancient and Modern Grammarians.

In the previous chapter I have attempted to show that the evidence of transliteration points to the Latin *v* of the Augustan age having undergone a modification of its original *w* pronunciation, which modification I have ventured to estimate in general terms as having been—

(1) *v* initial to a bilabial spirant, which may be expressed in English lettering by the nearest equivalent, *vw*.

(2) *v* medial, especially before *i*, to something very closely resembling the labio-dental spirant *v* of English, though the closeness of the resemblance would tend to vary according to the environment of sounds.

It now remains to consider the real and apparent objections to this view which may be gathered from the works of the ancient and modern grammarians. I say "apparent" advisedly, because the arguments of recent grammarians have been directed against the pronunciation of the Latin letter as a pure labio-dental spirant, a pronunciation to which the evidence of transliteration does not appear to me to give support, save when the letter is in a medial, and especially in an intervocalic position.

The arguments of the ancient grammarians have been fully stated in various modern works, and I shall confine myself to their quotations, except in cases in which the context in the ancient authors seems to me to modify or to cast doubt upon the modern interpretation of a particular passage.

A summary of the arguments in three modern works—Dr. Emil Seelmann's "Die Aussprache des Latein" (1885), Mr. Roby's "Latin Grammar" (4th edition), and Professor Lindsay's "The Latin Language" (1894), will, I think, exhaust the objections which can be raised to any view which does not accept the pronunciation of Latin *v* in the age of Augustus as an English *w*.

It may be well to take the objections in the order in which they are stated in Mr. Roby's Grammar, because they are there expressed in a peculiarly lucid and businesslike form.

Objection 1. "The same letter *v* was used in Latin both for a vowel and consonant sound. The vowel had the English *oo* sound. By a slight appulse of the lips *ou* became *w*. The Romans were quite alive to the distinction. The Emperor Claudius proposed a new letter, and Quintilian thought it would be desirable to have one. For (he says) neither *uo*, as his teachers wrote, nor *uu*, as was written in his own time, expressed the sound actually heard, which he compares to the digamma. The later grammarians, e.g. Terentianus Maurus, dwelt at greater length on this difference. This makes it probable that the sound was rather *w* than French *ou*."

It is very difficult to give a satisfactory answer to this particular objection, because the evidence cited is very obscure in its meaning, and is capable of at least two interpretations, neither of which can, in the present state of our knowledge, be satisfactorily established. With the earlier part of the statement everybody will agree. But the question is as to the element in pronunciation which suggested the new letter in the time of Claudius.

Transliteration points to the growth of a new element in the pronunciation of the Latin letters at this period. Professor Lindsay seems to think that the new element consisted in an increased consonantalism in the prevocalic *v* (*u*), that is to say, in the growth of a marked *w* as distinguished from an '*oo*' pronunciation. He speaks ("Latin Language," p. 8) of "a large number of words which in the Classical period, or the Empire, had the . . . . *w* sound," but "had in earlier times the sound of the vowels (sometimes of the half vowels); larva, for example, is a trisyllable in Plautus, never a dissyllable." Again (p. 9), "On the Monumentum Ancyranum we have IVENTVTIS (3. 5m.), and in Virgil MSS. iuenis, fluius, exuiae, etc."

The evolution of the *w* sound from prevocalic Latin *v* (*ou*) is so natural and so easy, as Mr. Roby implies, and the tendency to prevocalic consonantalism of this sound is so strong and so marked in all languages in which the sound exists, that it is very difficult to imagine that Latin resisted the tendency until an age immediately preceding that of Claudius. The citation of the one word from Plautus is hardly convincing. Does Plautus commonly deal in this way with prevocalic *v*? Again, it is quite conceivable that, in the case of two sounds so nearly allied as that of the Latin *v* and the *w* sound apparent in the French *oui*, the distinction might not be customarily apparent in certain words.

In the case of the words cited from the Ancyran monument and from Virgil we have to do with that phonetic busybody the yod, which was always apt to interfere with the affairs of neighbouring sounds, apart from the fact that in all the above cases the *v* is in juxtaposition to its kindred *u*. The peculiarity may be orthographic and not phonetic. Professor Lindsay assumes a change in pronunciation. The increased employment of *β* in the transliterations of the first century B.C. also implies a change. The assumption and the implication are both, in all probability, facts. The *β* transliteration is almost certainly the outward and visible sign of the change which Professor Lindsay assumes. But it also throws light on the nature of the change. Its earliest and, subsequently, its most regular employment is in the case of intervocalic *v* followed by *-ius*. I have already pointed out (page 34) that a *w* sound before this high front wide vowel would be peculiarly liable to modification, owing to phonetic reasons; and therefore the change indicated by the *β* transliteration is most probably a modification of the *w* sound, tending towards the front letter *v*. The same thing is, of course, far more strongly indicated by the fact that the further Latin *v* tends to the pure labio-dental, the more frequently does the *β* transliteration occur, until finally, when the change to the labio-dental is a fully accomplished fact, the *ου* transliteration practically disappears.

I have already discussed the question of the late digamma in Æolic and other dialects, and I need not repeat arguments to show that the proposed adoption of this letter more probably implies a non-*w* than a *w* sound. Varro, nigh a century before Claudius' time, spoke of the *v* in vafer, velum, vinum, vomis, vulnus as having a strong thick sound ("crassum et quasi validum"). As to the exact technical meaning of Varro's 'crassus' and 'validus' there may be some dispute, but, on the face of them, they are infinitely more applicable to a bilabial *v* than to a *w* sound. Again, the remark of Consentius, quoted by Professor Lindsay (p. 45), to the effect that the Greeks mispronounced the *v* in 'veni,' "*v* quoque litteram aliqui pinguius ecferunt, ut, cum dicunt 'veni,' putes trisyllabum incipere," pictures exactly what would be liable to occur in the case of a people who tried to pronounce a bilabial *v* which they had not in their own language. If anyone doubts this, let them ask some English friend to pronounce an initial bilabial *v*.

The passages from Quintilian referring to the proposed digamma

are in i, 4, and i, 7. In i, 4, he says: "Aut grammatici saltem omnes in hanc descendunt rerum tenuitatem, desintne aliquæ nobis necessariæ literarum, non cum Græca scribimus (tum enim ab iisdem duas mutuamur) sed propriæ in Latinis, ut in his 'seruus' et 'uulgus' Æolicon digamma desideratur."

In i, 7: "Nostri preceptores cervom servomque *u* et *o* literis scripserunt, quia subjecta sibi vocalis in unum sonum coalescere et confundi nequit; nunc *u* gemina scribuntur ea ratione quam reddidi: neutro sane modo vox quam sentimus efficitur. Nec inutiliter Claudius Æolicam illam ad hoc usus *F* literam adjecerat." Quintilian's reference to the 'preceptores' in relation to this maintenance of the antique *os*, *om* spelling after *v*, looks as if the whole thing were merely a schoolmaster's trick to prevent boys making mistakes in spelling. But the interesting thing is that the *v* sign, which had apparently satisfied previous ages when it had a *w* sound, no longer satisfied the age of Quintilian. Is it not probable that Quintilian and his contemporaries recognized that the sound of *u* consonantal in their time was not the sound which would be naturally evolved directly out of prevocalic *v*, i.e. the *w* sound, but a sound which could not be *directly* evolved by the consonantalisation of *u*? Therefore they felt that a new letter was desirable. The unscientific speaker of Latin, on the other hand, who associated the pronunciation of his own time with a certain customary sign *v*, and neither knew nor cared whether his pronunciation of the consonantal *v* was directly evolved from vocalic *v* or not, refused the new letter. It is noteworthy that the sign adopted by Claudius was not a digamma, but a doubly inverted *f*, i.e. *ⅎ*.

Objection 2. The vowel *o* when following *v* (consonant or vowel) was retained till the Augustan age or later, though after other letters it had usually changed to *u*, e.g. servos, later servus, etc.

Compare this fact with Bell's statement: "When *w* is before *oo*, the combination is rather difficult from the little scope the organs have for their articulation (i.e. consonantal) action; the *w* is in consequence often omitted by careless speakers, wool being pronounced 'ool, woman, 'ooman, etc."

With the passage in Quintilian in which reference is made to this peculiarity, I have already dealt. But the phenomenon as a whole, and particularly as stated by Mr. Roby, tends to support my contention that by the Augustan age a change *had* come over the pronunciation of *v*. This *o* survived till the beginning of the

first century A.D. It then died out. It had survived, Mr. Roby says, because it was more easy to pronounce with a *w* sound than was the Latin *u* (*oo*). Its disappearance would, in this case, appear to indicate a modification of the *w* sound of *v* such as allowed the ending *-us* to immediately succeed Latin *v* without inconvenience of pronunciation. At the same time I must say that, though this argument is really in favour of the view which I advocate, I am disposed to think that too great stress may have been put upon the difference between the sounds of *o* and *u* in this termination. Transliterations and other evidence show clearly that the border-line between *o* and a certain *u* in the Latin language was very difficult to define.

Objection 3. "The interchange of *u* and *v*; cf. miluus and milvus, relicuum and reliqvum." Miluus and relicuum belong to an age when transliteration shows that the *w* element in Latin *v* predominated. The other cases cited belong to the same or an earlier age.

Objection 4. "*v* between two vowels constantly falls away, not sapped by a slow decay, but, as it were, melted before the eye and ear of the people. Compare amaram, amaveram; audieram, audiveram; junior, juvenior; etc. . . . . This phenomenon, repeatedly occurring, seems hardly explicable, except on the assumption of the *v* being a vowel, or the closest approach to a vowel."

This abbreviation had taken place in an age long before the Christian era (cf. Lindsay, pp. 463–4, and also § 53, p. 52), i.e. at a period when, according to the evidence of transliteration, *v* retained a predominant *w* sound. There are two cases cited by Professor Lindsay (p. 52), viz. Ὀκταϊος (time of Augustus) and Σεῆρος, from Greek inscriptions. The latter is practically a unique case, possibly an engraver's error. No argument can be drawn from it. The common forms are Σευῆρος, Σενῆρος, Σεβῆρος, which Dr. Eckinger cites as occurring respectively 123, 37, and 47 times in inscriptions examined by him. Ὀκταϊος is a form which occurs 8 times in inscriptions between 100 B.C. and 156 A.D., as compared with Ὀκταούιος 16 times, Ὀκτάβιος 12 times, and Ὀκταύιος twice. I have not found it in any author. But it illustrates the twofold tendency which is apparent in the two centuries preceding the Christian era in reference to the inter-vocalic *v*, especially before the front vowels *i* and *e*. *The* v (w) *either vanishes, or tends to harden into a* v *sound.* In this particular

name both tendencies developed, but the latter seems to have eventually overcome the former. The *ov* transliteration is mainly due in this case to official convention, especially after the age of Augustus (Octavius).

Objection 5. *v* in Latin, except in very rare cases, never follows short *i*.

Objection 6. Consonantal *v* is never found before a consonant.

Objection 7. No distinction between the names of *v* consonant and *v* vowel in Latin.

All of these objections apply to an early age, and do not affect the evidence of transliteration, in fact are in agreement with it.

Objection 8. "The labio-dental *f* differs from the labio-dental *v* only as *p* from *b*, *t* from *d*, *s* from *z*, etc. . . . . With so great a similarity between *f* and *v* is it likely that the Romans, if their *v* was a labio-dental, would not have confused them, or have noticed the resemblance? Yet (*a*) no inscription substitutes *f* for *v*; and (*b*) the Roman writers, at any rate before the fourth century, seem not to have noticed this close resemblance, although (as was said before) the symbol *f* was borrowed from the digamma to which the Roman *v* corresponded." Mr. Roby then quotes Quintilian and Terentianus Maurus in support of the views above expressed.

The question here is the distinction or resemblance between the voiceless and voiced consonants, and the recognition or non-recognition of this distinction and resemblance by the Roman grammarians.

On this last point I cannot do better than quote a striking passage in Professor Lindsay's work ("Latin Language," p. 72). "The Latin phoneticians, who, as we have seen, are not very safe guides on any point of Latin pronunciation, are especially at fault here" (with regard to the tenues and mediæ); "for neither they nor their Greek masters seem to have carried their analysis of sounds as far as the phoneticians of India, who had at an early time discovered the distinction between unvoiced and voiced consonants, and its dependence upon the opening or closure of the glottis. The Latin phoneticians talk of *p* and *b*, of *t* and *d*, of *c* and *g*, as entirely different types of sounds, produced by different positions of the vocal organs." Professor Lindsay says, further (p. 73): "In native Latin words the tenues and mediæ are not confused to any great extent. . . . . It is perhaps only at the end of a word that we find a real variation between tenuis and media."

It is possible that the difference between the pronunciations of the voiced and those of the voiceless consonants, whether mutes or spirants, was greater in Latin than, for instance, in English. At any rate, the tendency to confusion between the two classes did not markedly exist. Nor does it appear to be a noticeable feature in Romance languages. It is, of course, the case that in Inlaut the Latin tenuis passes into a Romance media, the media to a spirant; but that is by the operation of phonetic tendency, not the result of confusion.

Objection 9. Mr. Roby cites the evidence of transliteration. I have already discussed his views on this question, with the exception of what he says with regard to the MSS. of the New Testament. "The name Silvanus occurs four times (2 Cor. i, 19; 1 Thess. i, 1; 2 Thess. i, 1; 1 Pet. v, 12). In St. Peter Vat. alone (against Sinait. Alex.) has Σιλβανος, etc." In point of fact this evidence amounts to very little. Eckinger cites one example of the form Σιλβανός in an inscription of 4 A.D. Otherwise it does not appear in inscriptions of the first and second centuries A.D., except as Σιλουανός. We have to go to the fourth and fifth centuries before we get another example of the transliteration of this name in *β*.

As far as literary evidence is concerned, it appears in Diodorus once with the *ου* and once with the *β* transliteration. In Josephus and Dio Cassius it has the *ου* transliteration only. I have not come across an instance of it in the other authors I have examined. It is a consular name (B.C. 2 and A.D. 156), and therefore the tendency would be to transliterate it by the official *ου*. On the whole the transliterations in the MSS. of the New Testament are, in respect to this name, in agreement with the evidence of contemporary documents, both literary and inscriptional.

I have dealt with those objections which are not directly answered in the constructive part of this discussion. A consideration of the other objections raised by Mr. Roby and by others would merely result in the repetition of what has already been said.

CHAPTER V.

The Latin *v* in Languages contemporary with and later than Latin.

The transliteration of the Latin *v* in Old Celtic, Old German, and in Syriac and Hebrew has frequently been used as an argument in favour of the *w* pronunciation of that letter. My own acquaintance with three out of these four languages is of the very slightest character, and in dealing with them I have relied on the standard works already published, supplemented in certain most important respects by information obtained first-hand from eminent scholars to whom I have applied for information on special points.

A great deal of misapprehension appears to exist as to the exact nature of this evidence. It has been cited again and again as absolutely conclusive upon this question, whereas the evidence of the standard works to which I have referred, and still more the information obtained from specialists in these languages, show that it is absolutely inconclusive.

The state of the case in Syriac and Hebrew may be dismissed in a few words. The Latin transliterations in Semitic documents have been discussed by Dr. S. Krauss.[1] Dr. Krauss (p. 47) states, on authority other than his own, that Latin *v* was not pronounced like Dorian digamma or French *v*; thus, speaking on his own authority, he says otherwise, "the transcription by *waw* (*vv*) as in velum would have sufficed. The fact, however, that the majority of the borrowed words reproduced *v* by Beth (*b*, *v*) indicates that in the Jewish mouth *v* sounded somewhat more strongly, something like German *w* or modern Greek *β*," etc. All this would appear to tell in favour of the view which I have put forward; but, unfortunately I have been informed, on the best authority, that no one of the documents used by Dr. Krauss can be dated earlier than the sixth century, and the majority of them are of much later date than that. They therefore do not afford any evidence whatever as to the pronunciation of Latin in the first century; and thus the Syriac and Hebrew witness is of no avail.

[1] S. Krauss: "Griechische u. Lateinische Lehnwörter im Talmud."

The appeal to the evidence of the Old Celtic has been regarded, as conclusive on the question of the pronunciation of the Latin *v*. At a joint meeting of the Philological Societies of Oxford and Cambridge held in the Autumn of 1905 in the Hall of Exeter College, Oxford, with a view to arriving at some agreement on Latin pronunciation, a set scheme was presented to those attending the meeting, about one hundred persons all told, and the acceptance or rejection of the proposals was made dependent on the majority of votes. On an objection being raised to the pronunciation of the Latin *v* as English *w*, one of those responsible for the scheme said that no question could be raised on this point, inasmuch as the Celts expressed the Latin *v* in transliteration by a *w* sound. That seemed decisive. But on the next day I ventured to put in writing to an eminent Celtic scholar the following question: "Did the Celtic language between 100 B.C. and 200 A.D. possess a sound correspondent to the English *v*?" The answer, also in writing, was as follows: "The question which you ask suggests to me that you know more about Celtic than you admit in your letter: it is as to the sound of English *v* in Celtic from 100 B.C. to 200 A.D. I can only guess that this sound was *not* there. It would come in plentifully when vowel-flanked *b* was softened to a *v* sound—perhaps at first it was bilabial *v*, as in the German 'quick' as contrasted with the English 'quick.' This sort of change may be put down to the period of consonantal mutation, which most Celtists have been wont to regard as beginning much later than 200 A.D.; but I should say that the later tendency is to regard it as beginning early, perhaps not so far back as 200 A.D., but say 400 A.D."

If this be the case, then the evidence of Celtic is of no avail, inasmuch as Celtic does not appear to have had any means of expressing the *v* element in the pronunciation of Latin *v*.

Professor Loth,[1] of Rennes, gives a still wider aspect to the question. He says (p. 3): "In the absence of Brittonic texts, and by reason of the small number of Celtic proper names for the first to the fifth century, and above all because of the radical transformation of the accent, of the quantity and of the quality of vowels, and of consonantism, in short of the organisation of the word, there exists between the Brittonic of the early centuries of our era and that of the ninth century a gulf which we can only

[1] J. Loth: "Les Mots Latins dans les langues Brittoniques."

attempt to bridge by the aid of the words borrowed from Latin." To this eminent Celtic scholar, therefore, it would seem that the data with regard to early Celtic must be taken from the Latin, not those with regard to Latin from the early Celtic. If that be so, argument from early Celtic to Latin is mere argument in a circle.

The question of the evidence of Old German is not quite so simple a matter. Old High German did not possess the *v* sound. Kluge says of the Old German *w*: "In the beginning of German *w* had the strong vocalic sound of the English *w*—quite a different sound to what it has at the present time. Hence in A.S. and O.H.G. *w* appears as *o* in Auslaut. When *w* developed into the spirant sound of the present day cannot be said with certainty. In Bavaria the change must have been completed before the end of the thirteenth century, for from this time onwards the signs *w* and *b* appear as of equal value, and indicate in the first place the Germanic *w*, and in the second the sound which had developed from the German as spirant *b*."[1] If O.H.G. did *not* possess a *v* sound, then its evidence on the question before us is as colourless as that of the Celtic. The difficulty in the case of Low German is not of the same nature. The question is as to whether the words of Latin origin existent in Old English came into that language direct from the Latin, or through the medium of Old Celtic or Old High German, or both. If they reached the Old English through either of these media, they reached it through a language which did not possess the *v* sound. The absolutely indecisive nature of the evidence from the Old Low German is well expressed in a passage translated from Kluge (p. 283): "The discussion of the Celtic elements in English shows clearly how difficult it is to work out the Latin influence which Old English has undergone. The possibility often arises that the material in question may come to the Old English through the Celtic. No one has as yet seriously considered whether the Anglo-Saxon experienced a generally direct but specific influence from the side of the Latin before the conversion to Christianity, or whether it is not the case that the old stratum English loan-words from the Latin refer back necessarily to the Celtic."

It is unfortunate, but it is the fact, that the languages contemporary with Latin afford us no clue whatever to the pronunciation of this important and puzzling Latin letter.

[1] Kluge in H. Paul's "Grundriss der Germanischen Philologie."

The history of the development of the sound of the Latin *v* in the Romance descendants of the Latin language is peculiarly interesting, but presents problems of special difficulty. It must be premised that the question of the pronunciation of *v* is in this area of investigation inseparable from that of the pronunciation of *b*. A consideration of the relations existing between these two sounds in Latin itself might well lead one to suspect that such would be the case in the languages descended from the Latin.

There are certain obvious factors to be taken into account in estimating the causes which have produced the wide differences which exist between the Romance descendants of the parent Latin. Differences of race, differences of climate, differences in the environment of daily life have played a great part. Modifications have been introduced into certain regions by the invasion of speakers of non-Latin tongues. All these elements in the calculation are well known, and have been taken into account by students of Romance.

But there is a further element to which I should like to call attention, which must, I think, play an important part in the calculation, especially in relation to the question with which I am now concerned. We cannot, as it seems to me, leave out of our calculation *the approximate date at which the linguistic ancestors of the speakers of a Romance tongue first became acquainted with the Latin language*. Latin was in process of apparently rapid evolution, in respect especially to the pronunciation of certain elements, between 200 B.C. and 200 A.D., and the Latin which the inhabitants of the Spanish peninsula and Narbonensis first learnt in the early half of the second century before Christ was in certain respects very different from the Latin which the middle and northern Gauls acquired about the time of the Christian era, and still more widely separated from the Latin which Trajan's colonists carried with them to Dacia. It seems to amount to a law of nature that all languages, whether indigenous or imported, are at all times in process of modification with respect to sound; but it is also a well-known fact that speakers of an imported language, especially if it be the language of a politically superior race, tend to resist modification of the tongue as they originally learnt it, and thus the development of a language is consciously retarded in a region in which it was not originally spoken, whereas it is allowed full play in a region in which it is native. *Cæteris paribus*, the linguistic ancestors of the Spanish, Catalan, and Provençal would tend to a pronunciation of the Latin tongue more antique than

that of the other races of the empire, who learnt the language at a later date, or than that of the Italian, who had, outside the select literary circle, no motive for conscious resistance to the natural development of what had become his native tongue.

It is, of course, true that the evidence of the Romance languages on the pronunciation of Latin is of indeterminate value, chiefly because, in the case of most of them, their full development in early mediæval times is unknown to us. Still, it is evident that the Latin sounds indicated by the letters *b* and *v* had, on the whole, a common development in most of the Romance tongues, the general tendency being in the case of *b* to retain the original sound of *b* initial and to evolve a *v* sound out of *b* medial. In this evolution the Romance tongues seem to have merely inherited an evolution which had taken place in Latin itself, in those parts of the empire, at any rate, in which an archaizing tendency did not prevail. Also, Latin *v* is generally admitted to have become a labio-dental in most parts of the empire before Latin had developed into Romance forms. The pure *w* sound of the old Latin *v* has not survived in any of the Romance languages, except, perhaps, in Sardinian. Though, owing to the evolution in the sound of that letter within Latin itself, the facts with regard to its pronunciation in the *individual* Romance tongues are not very pertinent to our present subject, still it may be well to summarise the facts with regard to the pronunciation of the present day.

The critical question in relation to our present investigation is not concerned with the existence of a labio-dental pronunciation of *v*. That is accounted for by the general tendency of the evolution of the letter within Latin itself. The element which demands consideration is what may be called the non-labio-dental pronunciation of *v* in certain Romance tongues. In French, of course, the *v* is labio-dental.[1] A *w* sound seems to have existed in mediæval French in connection with the semi-vowels *u̯*, *i̯*, and *que*, *qui* were pronounced *qwe*, *qwi* so late as the twelfth century. We have noticed, too, the *w* sound of the French *oui*. But in no case is a *w* element in this language to be traced to either of the Latin letters *b* or *v*. In the Italian groups a *w* element is said to be apparent in the Sardinian pronunciation of the Latin *v*, otherwise the *v* is labio-dental in this group. In the peculiar Rætian Romance dialect, which is still spoken in the Alpine

[1] H. Suchin: "Die Französische u. Provenzalische Sprache m. ihrer Mundarten."

districts of the upper Rhine, the *v* is labio-dental where it survives. The case of its disappearance may be stated here. Dr. Gartner says: "*v*, einmal auch *f* (bei foras) verschwindet oder vergröbert sich vor dunklen Vocalen, zb. bei ex-volare."[1] Of this last word he gives the following forms in the local Rætian dialects: žgulá, žvolér, žgolár, žulę́, žoré, anžorá, žolę́, žvualá, žvolá.

Before passing to the Romance groups of the Iberian peninsula, we may consider the case of Provençal, that language which, both in respect to its geographical position and its linguistic characteristics, forms the central point of the great Romance triangle of the French, Italian, and Iberian groups.

The case of Provençal offers some difficulty to the student who is not a specialist in this language, because the presence of a distinct *w* element in the pronunciation of the Provençal descendant of the Latin *v* is asserted by some authorities. This assertion appears to be an error. I am assured by one to whom the Provençal is well known as a spoken language that the *v* is a labio-dental spirant.

In Provençal, as in French, the voiced mute *b* when intervocal was evolved into the voiced spirant *v*. But this *v*, as well as that derived from the Latin *v*, passes in Provençal into a *u* when after a vowel and in the Auslaut of a syllable or word; e.g., liura, libram; viure, vivere. It is noticeable that in cases in which the Germanic *w* has been received into Provençal, it has been treated as in French: warden becomes Prov. guardar, Fr. guarder. The *u* after the *g* vanishes in Provençal during the tenth, in French during the twelfth century. It is certainly curious that, if Provençal retained a *w* sound descended from Latin *v*, this German *w* sound, for such it was at that date, was not expressed by the Provençal *v*.

In the Iberian group the evolution of the Latin letters *b* and *v* has varied. In Portuguese *v* has (in rare cases apparently) passed into *f*, vehementia—femença; often into *b*, venitta—bĩta, etc.; once into *m*, veturnus—modôrra. In a few cases *vo*, *vu* initial have passed into *go*, cf. vulpecla, golpêlha.

But in Portuguese the *v* appears to be a labio-dental spirant, both when it is a survival of the Latin *v* and when it represents some other Latin letter. Latin *v* does not appear to survive in the language in any form containing a *w* element.

[1] Theodor Gartner: "Grammatik der Rätoromanischen Mundarten."

In Spanish and Catalan the case is different, and in a certain sense strikingly different. In the first place, *b* and *v* in Spanish are identical in sound, though distinguished, sometimes incorrectly, in writing.[1]

Educated Spaniards distinguish a small difference between the respective pronunciations of the two letters. *b* has softened towards *v*, and *v* has hardened towards *b*; but still the pronunciation of *b* is said to be slightly harder than that of *v*. But the most interesting feature of the language for the purpose of our present consideration is that *v* has not become a labio-dental, but is a bilabial. The line of division in Spanish between the bilabial and the labio-dental is not, as in most Romance languages, between *b* and *v*, but between *v* and *f*.

In Catalan the matter is not so simple, because we have to deal with three related sounds, namely, *b*, *b'*, and *v*. *b'* is related to *b*, and is, apparently, a modification of the *b* sound which occurs between two vowels which are either in the same word, or in two words which are not separated in respect to pronunciation.[2]

"In the greater part of the Catalan region *v* and *b* have been mingled together. In Barcelona and Valentia (for example) 'la vaca' becomes 'la b'aca.' At other points on the Mediterranean, in Reus, Tarragona, Castillon, Alicante, on the contrary, according to the witness of the grammarians, the *v* in 'vida,' or that *v* which has sprung from intervocalic *b*, is carefully distinguished from the mute *b* and the fricative *b'*, and has the same value as in French. This *v* is therefore labio-dental. In the Balearic Isles and in Alghero the *v* in Auslaut has in some cases become *f*, e.g. escrif (escrivo). This *v* must also have been labio-dental.

Of the three letters the *b'* is, for our present purpose, the most interesting. "*b'* gives the ear the impression of a *v*, but of a bilabial sound, as was the *v* in vulgar Latin."[3]

In the Ruman tongue the *v* is labio-dental.

It is practically impossible to draw any conclusion with regard to the pronunciation of the Latin *v* from a consideration of the pronunciation of its lineal descendant in any *one* of these Romance tongues. The fact that *v* is a labio-dental in the case of most of them merely suggests the labio-dental character of the *v* of late

[1] G. Baist: "Grammatik der Spanischen Sprache."
[2] Morel-Fatio & Saroïhandy: "Grammatik der Katalanischen Sprache."
[3] Morel-Fatio, etc.: op. cit.

Latin, about which there exists no real dispute. In itself it throws no light upon the pronunciation of the letter in the Augustan age.

But when we take the whole group of Romance languages in our survey, they appear to be divisible into two groups on a certain *fundamentum divisionis*, or, perhaps, on a dual basis of division, which, however, result in groups which are identical. This dual basis is:—

(*a*) The labio-dental character of the sound descended from the Latin *v*.

(*b*) The labio-dental character of the *v* sound descended from Latin intervocalic *b*.

These two labio-dental characteristics seem to be present in Italian, Rætian, French, Ruman, and Portuguese.

In the other Romance tongues there are actual or reported divergencies. In Provençal a *w* element is said to be existent in the pronunciation of *v*, though the evidence on this point seems more than doubtful. Provençal pronunciation must have been considerably affected by the French.

In Sardinia the *w* element in the pronunciation of *v* is definitely stated to exist.

In Catalan, though the labio-dental *v* exists, intervocalic *b* (*b'*) has become a bilabial spirant. In Spanish no labio-dental *v* exists, both *b* and *v* being pronounced almost like the English *b*, i.e. *v* is bilabial.

It is, at any rate, remarkable that the exceptions to the usual labio-dental sound of the original or evolved *v* of the Romance languages should occur in those regions, and in those regions only, which by the process of Roman conquest acquired a knowledge of the Latin tongue at a period considerably anterior to the Christian era. It suggests that the Latin *v*, and indeed the Latin *b*, with which these regions first became acquainted was *not* identical in sound with that *v* which Middle and Northern Gaul, Lusitania, Rætia, and Dacia learnt to know in the Augustan age or later. I lay down no law: the factors in the calculation, though known, are so incalculable in their effect that it would be absurd to claim a knowledge of the exact effect of the particular factor presented by the date at which those speakers of a Romance tongue learnt that language which they were destined later to adopt as their own. But it must be accounted to be at least a remarkable coincidence that the Romance tongues of earlier origin display this

peculiar characteristic, in contrast with those whose origin is of later date—a characteristic, moreover, which accords with the evidence afforded both by transliteration and by the movement of the time of Claudius as to the perceptible nature of the change which had taken place by the date of the Christian era or thereabouts in the pronunciation of the Latin letter. The tendency of those provincials who had learnt the Latin of the second century would be to maintain its pronunciation, that is to say, to resist the natural course of development which the language underwent in the two centuries before Christ within the area of Italy itself. Hence the early prevalent *w* pronunciation of *v* was preserved in these regions long after it had become modified in the native land of the Latin tongue, and hence we find even now, after the lapse of 2,000 years, that the development of that sound of the Latin is in some respect or other in an earlier stage in these lands than in the other parts of Europe where Romance tongues are spoken.

TABLE I.

SPECIAL NAMES IN INSCRIPTIONS AND IN AUTHORS.

TABLE I.

Special Names in Inscriptions and in Authors.

Inscriptions.	Polybius (*circâ* 150 B.C.).	Dionys. Halic. (*c.* 30 B.C.).	Diodorus (*circâ* 8 B.C.).	Josephus (*c.* 70 A.D. onwards).	Plutarch (*c.* 80 A.D. onwards).	Appian (*circâ* 140 A.D.).	Dio Cassius (*c.* 180 A.D. onwards).
Φλάβιος, early form; from 62 A.D. Form Φλαούιος coexists.		Φλαούιος. Φλαύιος.	Φλαύιος.	Φλάβιος. Φλαύιος.	Φλάβιος. Φλαούιος.	Φλάϐιος.	Φλαούιος.
Καικέλιος, 250–80 B.C. Καικίλιος, 68 B.C.–260 A.D.	Καικέλιος. Καικίλιος.				Καικίλιος.	Καικίλιος.	Καικίλιος.
Ἀπολήιος, 120 B.C.–30 A.D. Ἀππουλήιος, 14 A.D.–2nd cent.					Ἀπουλήϊος.	Ἀπουλήιος.	Ἀπουλήιος.
Λεύκολλος, 88–30 B.C. Λούκουλλος, later than 30 B.C.	Λεύκολλος.		Λούκουλλος.	Λεύκολλος.	Λούκουλλος. Λεύκουλλος. Λεύκολλος (once only)		Λούκουλλος.
Λυτάτιος, 78 B.C. Λουτάτιος, 138–161 A.D.	Λυτάτιος.				Λουτάτιος.		

Μόμμιος, 146 B.C.–first half of 1st cent A.D. Μούμμιος, later than above.					Μόμμιος.	Μούμμιος.	
Πόπλιος, early form, but common in 1st and 2nd cent. A.D. Πούπλιος, temp. Claudius and Nero onward.	Πόπλιος.	Πόπλιος.	Πόπλιος. Πούπλιος.	Πούπλιος.	Πούπλιος. Πόπλιος (more common).	Πόπλιος.	Πούπλιος.
Ῥοτίλιος, 105 B.C.–30 A.D. Ῥουτίλιος, 84–243 A.D.			Ῥουτίλιος.	Ῥουτίλιος. Ῥστίλιος.	Ῥουτίλιος.	Ῥουτίλιος.	
Λεύκιος, practically sole form up to Christian era. 1st cent. A.D.— Λεύκιος : Λούκιος :: 1 : 1. 2nd cent. A.D.— Λεύκιος : Λούκιος :: 1 : 2.	Λεύκιος.	Λεύκιος.	Λεύκιος. Λούκιος (less common).	Λεύκιος. Λούκιος.	Λεύκιος. Λούκιος.	Λεύκιος.	Λούκιος. Λεύκιος (once).
Λέντλος, instances second half of 1st cent. B.C. and first half of 1st cent. A.D.	Λέντλος.		Λέντλος. Λέντουλος.	Λέντλος.	Λέντλος. Λέντουλος (once).	Λέντλος.	Λέντουλος.
Κοΐντος, earlier form. Κυΐντος, not before 50 A.D.	Κόιντος.	Κοΐντος.	Κοίντος.	Κυΐντος. Κοΐντος.	Κόιντος. Κουΐντος (once).	Κόιντος.	Κυΐντος.

TABLE II.—The *ov* and *β* Transliterations.

	Inscriptions.				Polybius.		Dionys. Halic.		Diodorus.		Josephus.		Plutarch.	
	Instances.		Percentages.		Percentages.		Percentages.		Percentages.		Percentages.		Percentages.	
	ov	*β*	*ov*	*β*	*ov*	*β*	*ov*	*β*	*ov*	*β*	*ov*	*β*	*ov*	*β*
3rd cent. B.C.	2	0	—	—										
2nd cent. B.C.	11	4	73	27	86	14								
1st cent. B.C.	27	14	66	34			70	30	64	36				
1st cent. A.D.	130	54	71	29							69	31	51	49
2nd cent. A.D.	312	150	67	33										
3rd cent. A.D.	158	110	59	41										
4th cent. A.D.	32	29	52	48										

TABLE III.—Official Names in Authors up to 100 A.D.

	Separate Names.				Transliteration of these Names in the several Authors.						
					No.	Instances.			Percentages.		
	No.	*ov*	*β*	*ov* & *β*		*ov*	*β*	*ov* & *β*	*ov*	*β*	*ov* & *β*
Official ...	24	10	4[1]	10	58	38	13	7	66	22	12
Non-Official	46	20[2]	20[3]	7	64	35	27	2	55	42	3

TABLE IV.—Official Names in Plutarch.

	Instances.		Percentages.	
	ov	*β*	*ov*	*β*
Official Names ...	181	62	74	26
Non-Official Names	33	70	32	68

[1] Of which 3 in *ov* in Dio Cassius. [2] Of which 1 in *β* in Dio Cassius.
[3] Of which 6 in *ov* in Dio Cassius.

TABLE V.—Official Names in Inscriptions noted in Eckinger.

	Percentages.		
	ov	*β*	*ov* & *β*
Official Names	21	6	73
Non-Official Names	44	37	19

N.B.—In this table the number of names, not the number of instances of their occurrence, is given. In the case of official names included under '*ov* & *β*,' the number of instances of *ov* transliteration is infinitely larger than the number of transliterations into *β*.

TABLE VI.—Geographical Distribution of *ov* and *β* Transliteration of eleven most common Names.

Class I: Athens and Greece.
Class II: Rome and Italy, Macedonia, Thessaly, Asia Minor.
Class III: Thrace, Russia, rest of Europe, rest of Asia, Africa.

	Percentages.		
	Class I.	Class II.	Class III.
ov	39	64	77
β	61	36	33

TABLE VII.—Inscriptions of Olympia: *ov* and *β* Transliteration.

	No. of Names.	Names with *ov*.	Names with *β*.	No. of Instances.	Instances of *ov*.	Instances of *β*.
1st cent. B.C.	1	1	0	1	1	0
1st cent. A.D.	4	3[1]	1[1]	9	3	6
2nd cent. A.D.	8	3	5	20	3	17
3rd cent. A.D.	7	0	7	23	0	23

[1] The 3 names in *ov* are all of them official. The name in *β* is not.

TABLE VIII.—Latin *v*, Initial and Medial.

	Total No. of Names transliterated by *β*.	*β* initial.	*β* medial.
Authors—			
Polybius	1	0	1
Dionysius Halic.	5	2	3
Diodorus	6	2	4
Josephus	6	1	5
Plutarch	33	13	20
Dio Cassius	4	0	4
	— 55	— 18	— 37
Inscriptions—			
Up to 2nd cent. A.D. (Eckinger)	48	27	21
Since Eckinger	8	4	4

TABLE IX.—Illustrating Phonetic Tendencies in the 1st century A.D.

	Authors.			Inscriptions.			Totals.		
	ov	*β*	*ov* & *β*	*ov*	*β*	*ov* & *β*	*ov*	*β*	*ov* & *β*
v before any vowel + liquid ...	19	8	4	10	2	4	29	10	8
v before *a*, *o*, *u* + liquid ...	11	1	2	5	1	2	16	2	4
v before *-ius*, *-ia*, *-ium* (*yod*)	1	6	5	3	2	4	4	8	9
v before vowel + nasal ...	7	8	3	2	1	0	9	9	3
v before vowel + sibilant ...	2	2(?1)	0	3	0	0	5	2(?1)	0
v before vowel + dental ...	3	3	2	7	3	0	10	6	2
v before vowel + labial ...	3	0	0	2	0	1	5	0	1

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